MONOGRAPH OF LIBRARY & INFORMATION SCIENCE

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Dedicated
To
"Dripta"
Who is no more

Preface

"**Monograph of Library & Information Science**" is a product of extensive efforts of several years. It is based on '"All in One" approach because it will be helpful for LIS students, scholars, and teachers as well as for NET/SET/SLET examinees, Library and Information Science (LIS) job oriented examinations and interviews. It includes almost each and every modern concept of LIS.

This volume contains short and medium questions and answers of almost each and every modern concept of Library and Information Science which is not available in a single book ever published.

We think the book will help a lot to our valued users. Any comments and suggestions from users' community are most welcome.

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Authors

1. What are the barriers of information communication? Or,State the barriers of communication.

Barriers encountered by communicator:

1. Political factors
2. Financial constraints
3. Time lag
4. Language
5. Lack of feedback/Noise

Barriers encountered by receiver:

1. Heavy cost of communication
2. Employers' policy
3. Channels
4. Lack of availability of recorded form
5. Procedural delay
6. Impact of information explosion
7. Lack of economic and social support
8. Ignorance of users

2. "Information as a commodity" – explain. (Or, Discuss how information act as a resource?)

Treating "Information as a commodity" means treating it as:

1. Something of fundamental value;
2. Specifiable and measurable characteristics;
3. An input which can be transferred into outputs;
4. An expense for which standard cost can be developed;
5. That presents to top management a variety of development choices.

3. What are the prerequisites/factors of resource sharing?

1. Financial support;

2. Controlling body/organization for proper management (i.e., regular maintenance, updating, accelerating search efficiency etc.);
3. Standardization of rules etc. and/or quality control;
4. Resolution of copyrights, liability rates etc.;
5. Network operational evaluation;
6. Technological support (including Internet connectivity);
7. Freedom of every institution/organization.

4. What are the functions/activities of IFLA?

1. To promote international understanding, co-operation, discussion, research and development in LIS;
2. Promoting continuing education of library personnel;
3. To provide an organization through which Library and Information Science, System and Services can be represented in matters of international interest;
4. To develop, promote and maintain guidelines for various types of library activities.

5. Describe E-Document.

Electronic document includes E-Database, E-Book/Wiki Book, E-journal, E-Audio/E-Music, E-News, Data/GIS, E-Newsletter, Digital Library Project, E-Exhibition, E-Subject Guide, E-Newsletter, E-White Paper, E-conference Proceeding, E-Report, E-Studies, E-Interesting Development, E-Directory, Web Search Tool etc.

6. Distinguish between Information Source and Information Resource.

Sl. No.	**Information Source**	**Sl. No.**	**Information Resource**
1	Non-expandable	1	Expandable
2	Non-compressible	2	Compressible
3	Non-substitutable	3	Substitutable
4	Non-transferable	4	Transferable
5	Non-Diffusive	5	Diffusive
6	Not shareable	6	Shareable
7	Informational value	7	Fundamental value

8	Measurable through bibliometric impact study	8	Measurable through growth rate
9	Used to gather information	9	An input

7. What is faceted classification?

Scheme of classification involving the analysis of a subject into its facets in the idea plane, transformation in the verbal plane, translation from the focal terms in the verbal plane to the focal numbers in the notational plane, and the synthesis of the focal numbers into class numbers in the notational plane.

8. Distinguish/ differentiate between pre-coordinate & post coordinate indexing.

Sl. No.	Pre-coordinate Indexing	Sl. No.	Post-coordinate Indexing
1	Co-ordination of index terms is being decided before the user's request.	1	Co-ordination of index terms is being take place after the user's request.
2	There is no other name.	2	It is also called co-ordinate indexing.
3	Simple subjects are indexed.	3	Compound subjects are indexed.
4	Complex to produce.	4	Simple to produce because the responsibility of co-ordination of index terms shifts to the searcher
5	Chain, PRECIS, POPSI are the examples.	5	Uniterm, KWIC, KWOC, KWAC etc. are the examples.

9. Distinguish between system approach and system analysis.

Sl. No.	System Approach	Sl. No.	System Analysis
1	Management approach	1	Management tool for system evaluation
2	Interrelated components/sub-system	2	Total system
3	Goal achievement	3	Goal/objective analysis
4	Having a boundary/area	4	Total area
5	An environment	5	Total environment
6	Some objectives	6	Mass objectives
7	Analysis is not the part of it	7	Component analysis, attribute analysis, classificatory analysis are the main tasks
8	Particular goal achievement is the objective	8	Acquiring deeper knowledge, better system design, better system design, theory development are the objectives
9	It is governed by the total system	9	Based on General System Theory
10	Not considered for other Study	10	Can be considered for subject study
11	Time saving is implied	11	Time saving device
12	Cost saving is implied	12	Decreases the operational cost

10. What is CIP?

CIP or Cataloging in Publication is basic cataloguing data for a work, prepared in advance of publication by the national library of the country where the work is principally published or by the public or private publishing organization. Library of Congress was started this programme in January 1971. It is being located in the back of the title page.

11. What is WWW?

The World Wide Web (commonly shortened to the Web) is a system of interlinked hypertext documents accessed via the Internet. With a Web browser, a user views Web pages that may contain text, images, videos, and other multimedia and navigates between them using hyperlinks.

12. What is Search Engine?

A Web search engine is a search engine (e.g., Google, yahoo, Alta Vista, Dog pile, Collarity, Healia, Huckbuck, Hot daddy, iBoogie, IncyWincy, Jatalla, Kahzam, Kosmix, Mojeek, Opsdo, Quintura, Scandoo, Search Medica, WebFetch, WebWobot, Whonu, WordIQ, Yurnet, Zepti, Zoo, Lycos etc.) designed to search for information on the World Wide Web. Information may consist of web pages, images and other types of files. Some search engines also mine data available in newsgroups, databases, or open directories.

The search engine is a tool which helps in the retrieving information from the Internet. It is programmed in such a way what it indexes the web and accordingly builds their databases. When the query has entered in the search engine, it checks its index with the query. Then relevant matches are retrieved and returned as 'hits' or 'search results'. In other words search engine acts as a searchable index of web pages of the world.

13. What is User Education?

User education and training has been defined in a generic way to include any effort or programme which will guide and instruct existing and potential users, individually or collectively, with the objectives of facilitating:

a. The recognition of their own information needs;
b. The formulation of these needs;
c. The effective and efficient use of information services as well as;
d. The assessment of the services.

14. What is Cost Benefit Analysis/Cost Effectiveness/Cost Effective Analysis?

Cost Benefit Analysis is an economic tool to aid social decision-making. The costs and benefits of the impacts of an intervention are evaluated in terms of the public's *willingness to pay* for them (benefits) or willingness to pay to avoid them (costs).

15. Distinguish between Applied Research and Basic Research. (Or, what are the difference between Basic Research and Applied Research?)

Sl. No.	Basic/Pure Research	Sl. No.	Applied Research
1	Aims to contribute to theory and techniques of the discipline	1	Aims to solve or improve a problem.
2	Studies any problem	2	Studies problem with important social consequence
3	Studies a problem usually from the focus of the discipline.	3.	Often several disciplines collaborate for solving the problem
4	Restricts to research only	4	Often it solved in action or administration, not only in research
5	Requirement mainly technical judgement	5	Requires also a sense of what the situation and personalities can bear
6	Look for the basic process	6	Looks for any variable which makes the desired difference
7	Reports in technical language of the discipline.	7	Reports in common language
8	Tries to say why things happen?	8	Tries to say how things can be changed?
9	Content with small differences if statistically significant	9	Interested in important differences

16. What is Open Access Initiatives?

Peter Suber (2002) an ardent advocate of the open access movement defines open access as "online access to scientific article without charge to readers or libraries. Committing to open access means dispensing with the financial, technical and legal barriers that are designed to limit access to scientific research articles to paying customers".

17. What is PPBS?

Planning Programmeming Budgeting System: Under this type of budgeting allocations are made for specific programmes after exploring the alternative ways of providing a programme e.g. Book Bank collection for poor students, research programmes for research scholars, Text Book collection for PG students, separate allocation are made in the budget for each programme.

18. Various Output Devices – discuss it.

The popular and widely used output devices are: printer, which provides results on the paper, visual display unit (monitor), which projects results on the screen, magnetic tape and disk drives (FDD) and optical disk drives (CD/DVD) which produce machine readable information on the magnetic and optical media respectively.

19. Define Search Strategy?

A search strategy is a process in which the queries of the users are translated into the indexing system and matching is done with the vocabulary of the system. It belongs to the output side of operational stages of information retrieval system.

20. Different Search Strategy in Information Retrieval. Or, Discuss various types of Boolean operators. Or, Describe the search strategies used in retrieving the information.

There are three types of Boolean searching in information retrieval i.e., OR, AND, NOT.

The logical sum 'OR Logic' is the class union operator. It is the result of common elements (through merging) of two classes/items e.g., (COMPUTERS) OR (INFORMATION RETRIEVAL).

The logical product 'AND Logic' is the class intersection operator. It is the result of elements common to both classes/items e.g. (COMPUTERS) AND (INFORMATION RETRIEVAL).

The logical difference 'NOT Logic' is the class exclusion operator. It is the result of elements common of first class/item which do not also belong to the second class e.g. (INFORMATION RETRIEVAL) AND NOT (DBMS).

Besides these, other five methods of searching are Word distance/proximity searching, Truncation/word fragment searching, Link, Roles and Weighting.

21. Discuss the various kinds of databases. Or, Mention different types of database.

There are four types of databases i.e., Bibliographic, Directory, Numeric/Factual, Textual/Full Text.

A bibliographic or library database (e.g. INSPEC) is a database of bibliographic records. It may be a database containing information about books and other materials held in a library.

[External bibliographic databases: Abstracting and citation databases like PSYCINFO, SCISEARCH]

Directory database containing names and addresses of the organizations (e,g, NUCSSI).

Numeric databases (e.g. PREDICASTS) provide mostly numeric data such as statistics, financial data, census information, economic indicators, etc.

A full-text database is a compilation of documents or other information in the form of a database in which the complete text of each

referenced document is available for online viewing, printing, or downloading. Full-text databases are usually bibliographic databases that contain the complete article. [e.g. The New York Times via NEXTS]

22. What are the different methods of CAS?

Different methods of CAS are:

1. Current Awareness List
2. Current Content/Content-by-journal
3. Routing of Periodicals
4. SDI
5. Research-in-progress
6. Forthcoming meetings
7. Newspaper clippings

23. What is IPR? (Or, Issues of IPR Or, What is the concept of IPR)

IPR are the rights given to people over the creation of their mind which are in intangible form. To enjoy the rights associated with IP, the thoughts should be expressed in a tangible medium like a patent, design, writing (book, novel, poem etc), sculpture, painting or art, etc. They usually give the creator an exclusive right over the use of his/her creation for a certain period of time. During this period IPR can be used, sold, licensed or even abandoned like any other more tangible assets.

24. What is information superhighway?

The information superhighway is a term that is sometimes used to describe the Internet . Nam June Paik, a 20th century South Korean born American video artist, claims to have coined the term in 1974. The *Oxford English Dictionary* (OED) lists "Information Superhighway" under "Information" and defines it as "a route or network for the high-speed transfer of information.

25. What are the key components of KM?

1. Making available increased knowledge content in the development and provision of products and services;

2. Achieving shorter new product development cycles;
3. Facilitating and managing al innovation and learning;
4. Leveraging the expertise of people across the organization;
5. Increasing network connectivity between employees and external groups with the objective of improving information flow;
6. Managing the proliferation of data and information in complex business environments and allowing employees to access appropriate information sources;
7. Managing intellectual capital and intellectual assets in the workforce (such as the expertise and know-how possessed by key individuals) as individuals retire and new workers are hired.

In brief, the components are Responsiveness, delivery of services, speed of implementation, continuous improvement, achieving al efficiency, staying ahead of competition, maximizing al potential, managing intellectual capital.

26. What is Facet Analysis?

Analysis of a subject into its facets, according to the postulates and principles stated for the purpose.

[The analysis of any subject to determine what characteristics should be used to divide it, relating them to the five fundamental categories]

27. Difference between Conventional and Non-conventional documents.

Conventional Document: Documents which we use frequently e.g. book, periodical publication, map, atlas etc.

Non-conventional: Conventional Document: Documents which we use rarely e.g. microcopy, audio, visual, audio-visual etc.

28. Primary Sources – why they are called so?

Information are the first published records of original research and development or description of new application or new interpretation of an old theme or idea like journal, conference proceedings, research monographs, reports, theses, feasibility reports, correspondence files,

manuscripts, govt. publications, patents, case studies, trade literature, engineering drawings, maps, charts, atlases, photographs, graphics etc. In present phenomena web documents are true Primary Sources.

These are original documents representing unfiltered original ideas. These constitute the latest available information. A researcher producing new information can make it available to the particular community through the primary sources. Often, it may be the only source of information in existence.

Primary sources are unorganized sources, which are rather difficult to use by themselves. The secondary sources help us to use these. These are important sources of information.

These aid the researchers to:

(a) Keep themselves up-to-date and well informed of the new developments;
(b) Avoid duplication in research;
(c) Help others to build on this by means of further work and thus generate more information

29. Data, information, knowledge and wisdom – explain.

Data is described as discrete and unorganized piece of information. It becomes *information* when these pieces are processed, interpreted and presented in an organized or logical form to facilitate a better comprehension of the concerned topic or issue. *Knowledge* is an organized body of information of the comprehension and understanding, consequent or having acquired and organized body of facts.

Many authors have attempted to define the distinctions among data, information, knowledge, and wisdom. Gamble and Blackwell describe "knowledge as a step on the road to wisdom" and provide the following definitions:
"Data – refers to chunks of facts about the state of the world."

"Classically, Information is defined as data that are endowed with meaning and purpose."

"Information connected in relationships may be described as Knowledge."

"Wisdom is the ability to make sound judgements and decisions apparently without thought."

Gamble and Blackwell expanded each of these definitions substantially, but they are typical of attempts to define the four terms that make up the DIKW hierarchy.

More recently, Boiko reiterated the hierarchy by stating that "Data are material facts, information is matter-of-fact; knowledge is a matter of dispute; and wisdom is non-material."

30. Process of generation and transformation of information.

OR

Enumerate the components of Information Transfer Chain.

The Information Transfer Cycle (ITC) involves seven interrelating aspects identified as knowledge creation, production, dissemination, diffusion, utilization and preservation or destruction. Order is depending on the theory that is operating, each aspect will be emphasized or de-emphasized accordingly.

The ITC is a helpful way to identify how shifts in theory effect information management.

31. Citation indexing – explain it.

A citation index is an index of citations between publications, allowing the user to easily establish which later documents cite which earlier documents. Thomson Scientific Index, Scopus (Sciences and Social Sciences), Citeseer, RePec, Google Scholar.

32. What is library cess?

S.R.Ranganathan advocated the provision of library cess (membership fee). According to Advisory Committee report: only a cess

can provide a stable base of library finance. It can give the library administrators some solid grounds from which they can plan ahead without fear of mishap the following year or year later.

33. State the changed functions of ASLIB.

ASLIB, The Association for Information Management, was established in 1924. Its members are private and public sector companies and organizations throughout the world, concerned with managing information efficiently. ASLIB has 3 branches and 14 Special Interest Groups, covering some 60 SIC areas. Its expertise is in helping and advising organizations, from SME's to large corporations and governments, on any of their issues and problems, information management great and small.

1. to stimulate awareness of the benefits of good management of information resources and its value;
2. to represent and lobby for the interests of the information sector on matters which are of national and international importance varying from copyright and data protection to the role of scientific journals;
3. to provide a range of information related products and services to meet the needs of the information society .

34. Distinguish between Reference Service and Referral Service.

Sl. No.	**Reference Service**	**Sl. No.**	**Referral Service**
1	This is a direct service.	1	This is an indirect service.
2	Service offered at the time of time of documents use.	2	Service offered through suggests the sources to the enquirer of information.
3	No programme has been taken to use the library, only direct help at the time of library use.	3	No programme has been taken to accelerate the enquiry rate, only indirect help to satisfy the clients at the time of expressing the information need.

4	Reference librarian (Librarian where reference librarian is not available) helps the user to find the pinpointed information.	4	Information officer/information manager/referral librarian helps the user to suggest the information sources.
5	This is information use desk/centre.	5	This is some sort of information desk.
6	Service to all types communities.	6	Service for scientific and technical community.

35. Differentiate between fusion and fission in the context of modes of formation of subjects.

When the subject is formed with the process of denudation/splitting is called fission e.g., Logic (secondary basic subject) is derived from Philosophy (primary basic subject). We can also say that the fission of isolate idea may be achieved in the following ways: (i) As an array division, or (ii) As the combination of a principal isolate and a speciator. (i) Fissioning of the isolate idea "Asia" gives us array divisions such as Iran, Nepal, Afghanistan and so on. (ii) "Bicycle – Hero Brand" is the combination of "bicycle" (principal isolate) and "Hero Brand" is a speciator. When subject (new primary basic subject) is formed through fusing two or more primary basic subject e.g. Geopolitics, Geophysics, Biotechnology, Biophysics, and Biochemistry, Astrophysics, Medical Jurisprudence, Educational psychology.

36. State the impact of categories on faceted classification.

Through freely but rigidly faceted/almost freely/freely faceted classification library professionals can classify the document properly because classifiers enjoy some sort of freedom in classifying the documents.

It is generally agreed that a faceted scheme is superior to an enumerative scheme. Any good faceted scheme formulated these days would clearly state the number of categories used as its basis. If one follows Ranganathan's approach, then five fundamental categories would prove sufficient for all subjects. Otherwise, one would have to determine

the number of categories separately for each basic class. There is no doubt that Ranganathan's solution has proved to be quite successful. Ranganathan's fundamental categories have been criticized a great deal but many of the critics have not fully understood the basis of these categories. He used the order PMEST to determine the citation order for facets in a class number. This has proved to be helpful in CC as well as in other schemes. He never claimed any philosophical basis for accepting five and only five fundamental categories. He merely postulated these and accepted the order PMEST. This has proved to be a remarkable contribution.

37. What is decision making process?

Decision making process can be divided into three phases:

1. Intelligence gathering: the environment inside and outside the organization is searched for conditions requiring a decision, and information is assembled with respect to those conditions;

2. Design: The available courses of action are determined and analyzed to determine their relative values as solutions to the decision problems that have been detected;

3. Choice: An available course of action, which is designed to convert the present, less desirable, is selected.

38. Differentiate between Intranet and extranet.

Intranet: Internet worked connection of local area network with a specific.

An extranet is a private network that uses Internet protocols, network connectivity, and possibly the public telecommunication system to securely share part of an organization's information or operations with suppliers, vendors, partners, customers or other businesses. An extranet can be viewed as part of a company's Intranet that is extended to users outside the company.

39. What is metadata? Or, what do you understand by metadata?

Metadata are data about data (e.g. catalogue card, it provides information about a document). An item of metadata may describe an individual datum, or content item, or a collection of data including multiple content items.

To express the metadata Document Type Definitions, Standard Mark-up Language and Extensible Mark-up Language are necessary. Meta data helps to work within a common framework using data models (such as Resource Description Format, Functional Requirements for Bibliographic Records, and Open Archival Information Standard) and standards (Dublin Core, Machine Readable catalogue, Online Information Exchange and IEEE Learning Object Metadata) are functional applications of metadata.

Metadata can either describe the *resource* itself (for example, name and size of a file) or the *content* of the resource (for example, "This video shows a boy playing football").

- Metadata is information about data.
- Metadata is information about information.
- Metadata contains information about that data or other data

Something can be data and metadata at the same time. The headline of an article is both its title (metadata) and part of its text (data).

Metadata can be used for two predominant purposes: (1) to describe documents as objects or containers and (2) to describe document content.

Metadata can be divided into 3 distinct categories:

- Descriptive
- Administrative
- Structural

40. What is interdisciplinary research?

Interdisciplinarity is a term of art in several professions concerned with education and training that refers to the qualities of studies that cut across several established disciplines or traditional fields of study. This involves researchers, students, and teachers in the goals of connecting and

integrating several academic disciplines, professions, or technologies, along with their specific perspectives, in the pursuit of a common task.

41. What do you understand by user studies?

User study or survey may be defined as "systematic study of information requirements of users in order to facilitate meaningful exchange between information systems and users".

42. Define TQM in the context of library service.

Application of TQM in Library and Information activities:

1. Better Service Standardization: TQM gives the following results in the various library activities:

(i) Better product design and improvement of confidence among users;
(ii) Developing an inventory of all the documents available in a library;
(iii) Developing a database, which includes readers for all types of materials in library;
(iv) Improving quality of information analysis and consolidation product;
(v) Improving skills of and users to profitability interact with information system and services;
(vi) Integrating and networking all library resources into serviceable resources to users;
(vii) Reduction in user complaints and efficient utilization of men, machines and materials, resulting in higher productivity.

2. Better Improvement of Service: Following are the necessary for the successful implementation of TQM in libraries.

(i) Create and develop a procedure file, which will help library staff to perform their task according to quality standard;
(ii) Establish quality goals and subject them to continuous review;
(iii) Devise mechanics to ensure balanced growth of library collection by appropriate budget allocation among various competing subject areas,

which is one of the essential pre-requisites for healthy collection development;

(iv) Always use latest editions of classification schemes, cataloguing codes, subject heading list and thesaurus for processing work;

(v) Provide specialized information service consistently and regularly like (CAS, SDI, Indexing and Abstracting) to keep the users knowledge up-to-date;

(vi) Meet information queries effectively, efficiently, and properly;

(vii) Release and make available in areas where the information needed;

(viii) Everyone involved in the work should by wholly aware of their individual responsibility for quality;

(ix) Change the library management practice and attitudes in very functional area enhancing the seriousness of purpose to satisfy the user;

(x) Computerization of all library housekeeping operations and information services is useful to achieve TQM;

(xi) Increase opportunities for user interaction and feedback;

(xii) Develop good public relation and openly communication.

3. User Needs and Requirements: User requirements drive the quality process understanding the users in terms of attitudes, values requirements, desire etc. Each library must assess its clientele, their needs, services to satisfy these needs, and the framework or context for information services. This requires a change in the mindset. The process of identifying the internal customer is itself a very enriching experience, and is sure to motivate the behind – the screen staff to provide the best to the colleagues, and in turn, to the system.

4. Document Standard and Data Control: Clearly, the library must ensure that all documents are available where they are required at the right time. The system should also provide comprehensive instructions on documents formulation and review. A common procedure with documentation number is to be established and maintained to ensure that document and data control is carried out. In addition, following common procedure should be established for the effective application of TQM in libraries: (i) procedure for document handling, storage, and data control, and (ii) procedure for control of quality records. The first essential requirements for document control is identification of records, which are: (i) Every document must be given a unique Identity (accession numbers)

and should carefully analyzed, classified and shelved. (ii) Materials must be recorded and a master list. (iii) Catalogue card and kardex for regular subscribed periodicals are required.

5. Collection Development: Collection development is one of the critical activities of library to the quality, cost, efficiency and safety of the services supplied by the organization. (i) To ensure that all materials and services obtained from various sources will fully meet the user requirements. (ii) It involves document selection, acquisition, of these materials and making these available to the users. (iii) Updating of an already existing collection.

6. Other Benefits of TQM: The following are the other benefits of TQM: (i) It reduces bureaucracy, empower staff and create a team base culture in the library. (ii) It helps gauging users needs and expectations in a proactive way and equips the librarians to provide more and better services. (ii) It is an evolutionary process and can easily be incorporated into the already existing management system of libraries. (iv)Reduction in user complaint and gain a competitive advantage cover other information providers. (v) In TQM quality is a high profile management tool. Its implementations in libraries improve the image of the library staff and helps in public relation and marketing. (vi)It helps in breaking down inter sectional barriers/status in a library and promotes cooperation and teamwork instead of competition. (vii) Empowered staff members develop a sense of self-determination.

What is attempted in the whole process of TQM is to introduce a new cultural change, through changing the style of people management which is likely to bring about greater participation from the employees who would work with the management to achieve the organization goals and objective. Management rewards comes from:

- Work itself becomes more interesting through greater involvement of employees;
- Increase in general productivity;
- Lower absenteeism because of greater job interest and satisfaction to employees;
- Fewer grievances among the employees;
- All round greater team spirit.

Top management must convey to middle management that it believes in TQM approach with the design of a deliberate policy. Middle management are expected to conduct their affairs keeping TQM policy in

view, conveying the decision to supervisors. Once the entire organization is geared to the change, the new culture would get engrained in the organization leading to success.

43. Explain the concept of E-Commerce.

Electronic commerce, commonly known as e-commerce or e-Commerce, consists of the buying and selling of products or services over electronic systems such as the Internet and other computer networks. The amount of trade conducted electronically has grown extraordinary since the spread of the Internet.

44. Explain the concept of Content Analysis. Or, What is Content Analysis? Or, Discuss the role of Content Analysis.

Content analysis (sometimes called *textual analysis* when dealing exclusively with text) is a standard methodology in the social sciences for studying the content of communication. The method of *content analysis* enables the researcher to include large amounts of textual information and systematically identify its properties, e.g. the frequencies of most used keywords (KWIC meaning "Key Word in Context") by detecting the more important structures of its communication content.

In other way, content analysis is the study of recorded human communications, such as books, websites, paintings and laws. It enables the researcher to include large amounts of textual information and systematically identify its properties, e.g. the frequencies of most used keywords (through keyword indexing) by detecting the more important structures of its communication content.

Simply we can say that content analysis is the procedure for analysis of content in Books, Journals to serve the pinpointed information to the user.

<u>Web content analysis is being done</u>:

(i) to assess the content of library website;
(ii) to know the existing facilities provided in the website;
(iii) to measure the aesthetic value, accuracy, currency, accessibility and user friendliness;

(iv) to assess the relevancy and quality of graphics, animations which used in the selected libraries.

45. Define OPAC.

An Online Public Access Catalogue or OPAC is a computerized online catalog of the materials held in a library, or library system. The library staff and the public can usually access it at computers within the library, or from home. OPAC terminals began to replace card catalogs in many libraries in the 1980s. Since the mid-1990s, these systems have increasingly migrated to Web-based interfaces. OPACs are often part of an integrated library system.

46. What is programming language?

A programmeming language is an artificial language that can be used to control the behavior of a machine, particularly a computer. Programmeming languages, like natural languages, are defined by syntactic and semantic rules which describe their structure and meaning respectively. Many programmeming languages have some form of written specification of their syntax and semantics; some are defined only by an official implementation.

47. What is information society?

An information society is a society in which the creation, distribution, diffusion, use, and manipulation of information is a significant economic, political, and cultural activity. The knowledge economy is its economic counterpart whereby wealth is created through the economic exploitation of understanding.

48. Significance of User Study in LIS.

User studies are conducted mainly to know the precise information needs of user so as to plan, design, organize and to operate the information systems to meet those needs. Before planning and designing an information system the user studies must be conducted from time to time to provide efficient services and to modify the services in accordance with the varying needs of users.

49. What do you mean by Multimedia? Or, Role & functions of multimedia in library services.

Multimedia (Lat. Multum + Medium) is media that utilizes a combination of different content forms e.g. text, audio, still images, animation, video, and interactivity which are very useful for better library services.

50. Define Delphi Technique?

Delphi technique/Delphic poll is a well known form for group questioning. The Delphi can be considered as an instrument for collecting data. It should be employed only when there is no better way to collect data than Delphi.

51. What is SWOT analysis?

SWOT Analysis is a strategic planning tool used to evaluate the Strengths, Weaknesses, Opportunities, and Threats involved in a project or in a business venture. It involves specifying the objective of the business venture or project and identifying the internal and external factors that are favourable and unfavourable to achieving that objective.

Strengths and Weaknesses within the Organization, and Opportunities and Threats from outside the organization. It's aim is to develop strategies to deal with that external PEST (Political issues, Economic forces, Social forces and Technological forces) change that is occurring or may occur in the near future.

52. Distinguish between formal and informal channel. Or, Briefly Discuss the Channels of Information Communication.

Formal channel: channeling of communication-the imparting, convening or exchange of ideas and knowledge whether by speech, writing or signs formally. The quality of use of that information is the measure of its quality. The recorded information are in the form of periodicals, printed and other forms of reports, tapes, etc. Indexing and abstracting services, books, encyclopaedia, summaries, bibliographic reviews, annual reviews and state-of-art, reports, conference proceedings, card catalogues, etc.,

audio visual materials, etc. The recorded form of information is authentic and consistent and hence very popular. The only drawback is the time lag in publication.

Informal channel: Channeling of communication informally. This mode is both oral as well as written and helpful for community of scientists or research scholars working in small groups. Some of the common sources of informal communications are:

1. Discussions and talks via telephone, Internet telephony or conferencing or personal letters;
2. Distribution of manuscripts, among friends and scientists;
3. Direct talks with friends, colleagues, etc.;
4. Exchange of ideas in conferences and group discussions;
5. Work in progress;
6. Unpublished theses and dissertations;
7. Technological gatekeepers;
8. Invisible colleges

53. Open Source Software – Define it.

In the open source software development model, the source code of software is made freely available along with the binary version so that anyone can see, change, and distribute it subject to the condition he/she abide by the accompanying license. According to Open Source Initiatives "Open source promotes software reliability and quality by supporting independent peer review and rapid evaluation of source code. To be certified as open source, the license of a programme must guarantee the right to read, redistribute, modify, and use it freely".

OSI set aside ten criteria for a software product to be called open source software. OSI provides *OSI certified License* to a software product if it satisfies following ten criteria:
(i) Free distribution (ii) Source code (iii) Derived works (iv) Integrity of the author's source code (v) No discrimination against persons or groups (vi) No discrimination against fields of endeavour (vii) Distribution of license (viii) License must not be specific to a product (ix) The license must not restrict other software and (x) The license must be technology-neutral.

54. Define Informetrics.

Nacke (1979) defined informetrics as the application of mathematical methods to the investigation of information science objects with the aim of describing and analyzing their properties and laws in order to optimize these objects in decision making.

In other words, it is the study of quantitative aspects of information. Informetrics in its ambit includes the aspects like, collection, creation, exploitation and dissemination of information in its every form.

55. Knowledge is power – elucidate.

Knowledge acquisition involves complex cognitive processes: perception, learning, communication, association and reasoning. The term *knowledge* is also used to mean the confident understanding of a subject with the ability to use it for a specific purpose if appropriate. So without knowledge we can't understand no contribution or activity of the world so knowledge is power.

56. What is Digital Library? (Or, Define Digital Library).

A digital library is a distributed technology environment (print, microform, or other media) which dramatically reduces barriers to the creation, dissemination, manipulation, storage, integration, and reuse of information by individuals and groups."

A digital library is a machine readable representation of materials which might be found in a university library together with organizing information intended to help users find specific information. A digital library service is an assemblage of digital computing, storage, and communications machinery together with the software needed to reproduce, emulate, and extend the services provided by conventional libraries based on paper and other material means of collecting, storing, cataloguing, finding, and disseminating information. A full service digital library must accomplish all essential services of traditional libraries and also exploit digital storage, searching, and communication.

57. What is impact factor?

The Impact factor, often abbreviated IF, is a measure of the citations to science and social science journals. It is frequently used as a proxy for the importance of a journal to its field. Impact factors are calculated each year by Thomson Institute for Scientific Information for those journals which it indexes, and the factors and indices are published in *Journal Citation Reports.* It is a measure of the frequency with which the "average article" in a journal cited in a given period of time. The impact factor for a journal is calculated based on a three-year period, and can be considered to be the average number of times published papers are cited up to two years after publication. For example, the impact factor 2007 for a journal would be calculated as follows:

A = the number of times articles published in 2005-06 were cited in indexed journals during 2007

B = the number of articles, reviews, proceedings or notes published in 2005-06

Impact factor 2007 = A/B

Note that the impact factor 2006 will be actually published in 2007, because it could not be calculated until all of the 2007 publications had been received. Impact factor 2007 will be published in 2008.

58. What is virtual library?

Virtual library is library that consists only of resources available in digital format, which can be accessed locally stored on a hard disk or through computer networks – public or private. It does not consist of full text articles and multimedia.

'Virtual Library' is one such innovative service, which facilitate customized access to information resources in the Internet. Virtual Library is a service in which information resources are distributed via networks. The WWW Virtual Library is one of the oldest examples of a virtual library & was the first index of content on the World Wide Web and still operates as a directory of E-texts and information sources on the Web. It was started by Tim Berners-Lee, the creator of HTML and the web itself, in 1991 at CERN in Geneva.

In the broadest sense, a virtual library is a system by which users access information that resides solely in electronic format on computer networks, without respect to physical location of the information. Thus, the virtual library is location in dependent delivered over network, to serve user community and made accessible electronic information resources through collection and of it. E.g. INFOMINE: Scholarly Internet Resources Collections. (University of California) is a prominent, growing virtual library and can access through http://infomine.Ucr.edu/

59. What is knowledge society?

Knowledge societies have the characteristic that knowledge forms major component of any human activity. Economic, social, cultural, and all other human activities become dependent on a huge volume of knowledge and information. A knowledge society is one in which knowledge becomes major creative force.

60. What is the importance of weeding out of library documents?

i) To avoid duplication of documents ii) To remove the older outdated edition, books of poor condition, poor content, poor use, uncommon language to keep the library up-to-date, free from pest and well arranged.

61. Discuss the components of KWIC.

i) Keyword – this is written either in the beginning or in the middle, often in bold letters or capital letters or underlined for easy filling and searching.
ii) Context- the rest of the title besides the keyword is used as the context. A stoke (/) separates the last word and first word of the title. The context helps in efficient retrieval.
iii) Reference – a code number or symbol identifying the document is aided at the extreme right end.

62. What do you mean by hypertext?

Hypertext is basically text which has been dressed up with extra feature like formatting, image, multimedia and like other documents to Internet service.

63. State the various types of computer protocol?

Protocol may also refer to:

In computing and Internet:

Communications protocol, a set of rules governing communication between electronic devices

Protocol (computing), a set of rules governing communication within and between computing endpoints File Transfer Protocol or FTP

Hypertext Transfer Protocol or HTTP

Internet protocol suite or TCP/IP (Transmission Control Protocol/Internet Protocol)

Protocol (object-oriented programming)

Cryptographic protocol

64. List the Bibliometric laws.

i) S.C.Bradford's Law of Scatter ($1:n:n^2$)

ii) Lotka's Law [$x^n y=c$ where x stands for the no. of contributions, y the no. of authors, and c is constant)

iii) Zipf's Law $Y \alpha\ 1/x$ XY = n where n is a constant.

65. What is Information Literacy?

US Association of College and Research Libraries (ACRL) has been widely quoted, "Information literacy is a set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information."

Information literacy can be defined as the ability to know, to be able to identify locate and evaluate the information sources. In other words it is the ability to access, process and use information effectively.

66. Application of barcode technology in libraries.

A barcode (also bar code) is a machine-readable representation of information. Barcodes are widely used to implement Auto ID Data Capture (AIDC) systems that improve the speed and accuracy of computer data entry.

67. What do you understand by a blog?

Blog = web and log = a webpage with diary elements. A blog (a portmanteau of web log) is a website where entries are commonly displayed in reverse chronological order. A typical blog combines text, images, and links to other blogs, web pages, and other media related to its topic. Blog is a recent and innovative tool of information sharing & dissemination. It has grown in numbers about over two million & the role being played by them is resulting in wider readership & above all their usefulness & popularity in library and education.

68. Enumerate the steps of Information Consolidation.

An information and consolidation (IA+C) product is a new type of secondary information product more specifically it is reprocessing, rearranging and repackaging of information from a selection of information sources. Types of IA+C products are (i) State-of-the-art report/reviews (ii) Research-in-progress (iii) Manuals (iv) Guide books (v) Hand books (vi) Directories (vii) News summary (viii) Country profiles (ix) Product/Process profiles (x) Feasibility reports non-critical factual trend reports

Steps of information consolidation are as follows:

Step1: Identification of users' information needs and determination of the scope of the product: IA+C products are compiled to meet the specified information needs of users. So the familiarity with the users' requirements of the subject(s) of their interest through the study of subject is pre-requisite in determining the scope of the product.

(a) Subject coverage: This involves the precise specification of the scope of the product by recognizing each of the component ideas and the correct degree of interrelationship among them.

(b) Study of subject: A systematic study of subject falling within the purview of information needs of potential users is to be made by adopting an appropriate methodology.

(c) User group: This would mean the specification of the product user group – that is, those for whom the product is meant.

(d) Type of the products to be compiled: This involves the specification of the IA+C product to be compiled, such as, state-of-the-art report, manual, handbook, etc.

Step 2: Collection of information: Information is collected about each of the component ideas going with the precise subject determined in the earlier step.

Step 3: Indexing the collected information (abstracts) using POPSI specific: All the abstracts are indexed and subsequently organized using POPSI-Specific. POPSI-Specific ideally suits the requirements of the compilation of an IA+C product in view of its unique quality of displaying the various aspects of a subject in a helpful yet systematic manner according to the information needs of users.

Step 4: Appraisal of arranged entries: The systematically arranged entries will now enable one to check the duplication or redundancy of information.

Step 5: Consolidation: The systematically arranged relevant entries are written out in a helpful coherent sequence integrating all information into an organized text. It has been structured with adequate subheadings.

Step 6: Preparation of index: An IA+C product is to be provided with an expressive index to its text in order to find out the required piece of information from the product without much loss of time.

Step 7: Testing and finalization: The draft consolidated text is tested by using it with the target user group. On the basis of the feedback received, text is finalized.

69. List the significant features of UDC.

UDC was initiated by Paul Otlet and Henri La Fontain. They supervised it in its initial years, but the present form of the UDC owes much to the efforts of Frits Donker Duyvis. FID is the body which has overall responsibility of UDC.

The principles underlying the UDC are (a) to follow the general pattern of the Dewey Decimal Schedule, i.e. the division of the whole human knowledge into ten main branches, each further subdivided decimally to the required degree, (b) to retain the use of the decimally conceived numerals and (c) to introduce numerous synthetic devices – an

auxiliary apparatus of connection and relation signs, lacking in the DDC, whereby all types of compound subjects can be represented through combination of symbols.

In brief, the term 'universal' has three meanings as applied to UDC: it is intended for all countries, embodies all knowledge, and allows any combination of concepts from any subject.

Essentially, the UDC is "a practical system for numerically coding information, so designed that any item, once coded and field correctly, can be readily found from whatever angle it is sought.

Significant features of UDC are as follows:

i) Degree of complexity

a) Multiplicity: Composite subjects can be represented by linking their class numbers by/and

b) Individuality: Further subdivisions of a class can be labeled A to Z

c) Relationship general: Symbolized by linking related class number by the colon.

d) Point of view: Special numbers introduced by double Zero. Special common features in basic class: designed by numbers introduced by the dash or zero. Space ( ), time " ", race (=), language (=) and bibliographical form (0...) schedules are provided.

ii) Structure

a) Collocation: The basic outline is that of the DDC (Dewey Decimal Classification). Therefore, the weakness in the collocation of subjects in the DDC is found to a large extent in the UDC. For example, Economics, Commerce and Business are separated; so are Language and Literature, although through notational device, as will be seen later, these subjects can be brought together. So the collocation is more helpful.

b) Adjustments: The improvement upon the DDC as seen in the UDC is that some adjustments have been made to endow the modified system with features of a faceted scheme.

c) Schedules: The UDC consists of two categories of schedules: (a) the main tables in which are set out the main classes 1 to 9 and the various series of special auxiliaries; (b) the auxiliary tables in which are set out the common auxiliaries and connecting symbols.

70. Describe the concept of copyright.

Copyright – symbolized "©" – is a legal concept enacted by most national governments, that gives the creator of an original work exclusive rights to it, usually for a limited period of time.

Copyright - At its most general, it is literally "the right to copy", but also gives the copyright holder the right to be credited for the work, to determine who (if anyone) may adapt the work to other forms, to determine who may perform the work, to benefit financially from the work, and other related rights. It is one form of intellectual property (distinct from patents, trademarks, and trade secrets), and applies to any particular expression of an idea or information, which is substantial and self-contained in a fixed form.

71. Enumerate the steps of database designing.

The process of doing database design generally consists of a number of steps which will be carried out by the database designer. Not all of these steps will be necessary in all cases. Usually, the designer must:

- Determine the data to be stored in the database
- Determine the relationships between the different data elements
- Superimpose a logical structure upon the data on the basis of these relationships.

72. What is the role of RRRLF in the development of public libraries? Or State the activities of RRRLF.

During the Fourth Plan Period (1969-74) the Government of India set up Raja Rammohan Roy Library Foundation (1972) as an autonomous body under Department of Culture, Ministry of Education, for the development of public libraries in the country. The Foundation works in collaboration with State Library Planning Committees set-up in each state by the respective state governments for the development public library service and promotion of library movement. The Foundation renders assistance to state governments on matching basis for purchase of books, organising seminars and conferences, purchasing furniture, for running mobile library service etc. Recently the Foundation has prepared a National Library Policy for the consideration of Planning Commission. Major objectives of the Foundation are as under:

1. To work for development of library movement in the country;
2. To propagate the idea of library legislation and to work for its adoption by State governments;
3. To enunciate and prepare a national library policy;
4. To advice the government on all matters relating to library development in the country;
5. To act as a clearing house of ideas and information on library development in India and to publish review of library development in the country;
6. To undertake or sponsor compilation of directory of libraries;
7. To render financial assistance to libraries, library associations and other s engaged in the promotion of library development;
8. To help build up a national library system by integrating the services of national libraries, state central libraries, district libraries and other types of libraries through inter-library lending system and to promote library cooperation;
9. To support the compilation of a National Union Catalogue of libraries and of subject bibliographies and documentation lists;
10. To promote research in problems of library development;
11. To collaborate with institutions engaged in similar activities in India and abroad with a view to furthering the objectives of the foundation;
12. To take all such measures as may be found necessary from time to time to promote library development and its utilization in the country.
13. Assistance for collection building
14. Assistance for rural libraries and mobile library service for rural areas
15. Assistance for seminars, workshops, conferences, training courses, and exhibits
16. Assistance for facilities and equipment for storage and display of materials
17. Assistance for public library building
18. Assistance for television and VCR equipment for educational purposes
19. Assistance to voluntary organizations providing public library services

20. Assistance to children's libraries or children's sections of general public libraries.

73. Distinguish between FAQ & Ask the librarian.

FAQ is an initialism for "Frequently Asked Question(s)". The term refers to listed questions and answers, all supposed to be frequently asked in some context, and pertaining to a particular topic.

Ask a Librarian is an online reference service uses QuestionPoint, a global, collaborative reference service. Questionnaire of the enquirer may be forwarded outside the library or archived on the basis of his/her permission e.g., Library of Congress Ask a Librarian service.

74. What is Web OPAC?

An Online Public Access Catalogue or OPAC is a computerized online catalogue of the materials held in a library, or library system. When OPAC is available through Internet or web then it is called as Web OPAC. For example, in SOUL, there is a provision of web OPAC.

75. What do you understand by Applied Research?

Applied research has most of the characteristics of fundamental research (laboratory based research), including the use of sampling techniques and the subsequent interferences about the target population.

76. Describe the concept of Citation Analysis? Where citation indexes used more?

Analysis of citations can reveal useful information like the relative use of different kinds of documents such as books, periodicals, reports, patents etc., the age of these documents which reveal the rate of obsolence of literature, the most frequently used titles of periodicals, scattering of literature etc.

While citation indexes were originally designed for information retrieval purposes, they are increasingly used for bibliometrics and other

studies involving research evaluation. Citation data is also the basis of the popular journal impact factor.

77. Explain the role of RRRLF towards modernization of public library.

The Chambers Dictionary defines moderniation as an 'effort to adopt to present time, conditions, need, etc'. The role of public libraries as an agency that brings about 'change' in the society by alerting and educating the people. Moderniation or adoption to change cannot be considered a one-time effort. It is a continuing process. Progressively adopt to automation and computerization is recommended so that the time so saved could be utilized in the service of the user of the libraries (Sastry, 1994).

The interface of computer technology with the communication technology means Information Communication Technology (ICT) made the flow of information easier and faster. The networking of public libraries has become essential. The RRRLF realized the lack of automation in public libraries. In order to fill in the gap, the RRRLF came forward to provide computers to all state central libraries (SCLs) and district central libraries (DCLs). It wants to network with the SCLs and DCLs in the first phase. It also proposes ultimately to cover and link up all the public libraries, mandal libraries, village libraries and book deposit centres with the DCLs, SCLs and desire to establish the network of Indian public libraries. The modernization of the public libraries in the villages will enable rural communities access to information. It is desirable to establish a proto digital library to help the public libraries (Reddy, 2008).

78. Need for marketing of Information.

Several factors are responsible in reshaping the library and information services. It is more than a mere contention that the position of permanence and solidity enjoyed by library and information services is now under a bombardment of threats for variety of factors, services and systems which have come to the fore on widespread technological, social and economic levels. The following forces have been identified.

i) Competition
ii) Manpower cut
vi) Information Revolution
vii) Information Technology

iii) Financial Crisis
iv) Increasing Costs
v) Rupee Fluctuation
viii) Information Superhighway
ix) Increased Demand for Information

79. Discuss the services of MEDLARS.

MEDLARS provides following three types of services according to the requirements and facilities available:

1. Hard copy service
a) Index Medicus – Monthly
b) Cumulative Index Medicus – Annual
c) Current Catalogue
2. MEDLAS – magnetic tapes
(Retrospective searches, batch/sequential operation)
a) Special literature search viz. recurring bibliographies
b) Demand search viz. Demand bibliographies
c) Searching of MEDFILE and COMFILE
3. MEDLINE (for MEDLARS ONLINE) – back file and data after 1972.

80. Role of PMEST (Five Fundamental Categories).

The fundamental category 'Time' occurs in every subject forming a local description or local history of any subject. 'Space' occurs in every subject. Problem has been used to denote a manifestation of 'energy'. Density, elasticity, specific heat, and other physical attributes, valency, affinity, weight, bond, taste, and other chemical attributes. 'Matter' helps in meeting problems in classification. Basic classes, forms the basis, the host, the locus of all other fundamental categories.

81. Role of public library for the educational development of people.

The public library is the most appropriate agency of adult education in so far as it provides both the requisite reading material and environment for informal reading. Apart from ensuring skill and competence in individual, continuing self education brings a sense of satisfaction and enlightenment to man. In this context, the functional role of the public library needs proper recognition and appreciation. As an

agency of adult education, it has used various: instruments of mass communication, with increasing use of audio visual materials for disseminating information. In fact, it is the only agency in under developed countries for the promotion of mass education and for the elimination of illiteracy.

82. Elucidate the concept of translation service, functions and problems of translation pools?

Concept/Definition

Translation service is one of the facets of documentation, which plays a very important role in dissemination and application of information and knowledge. Hence programmes to provide this service should be arranged and organized systematically in each library and documentation/information centre. The programmes concerned with translation services are time consuming as well as money consuming.

Translation Pool

In the world, the literature specifically today in the field of science and technology is published in so many languages, to which the scientists do not find themselves able in understanding due to the variety of languages. Hence some agencies at national and international levels have taken the task of providing this literature published in variety of languages, through translation services. For this purpose so many translation centres, translation banks, and translation institutes have been established, which we call Translation Pools e.g. National Translation Centre (NTC), America; International Translation Centre (ITC), Netherlands; British Library Lending Division (BLLD); Association for Information Management (ASLIB), Britain; INSDOC & IASLIC, India. And some periodicals are also published in the field, they may be called Translation Tools.

Functions of Translation

The functions of translation pools are i) to translate the journal article (into English language) published in other languages to cross over the language barriers and ii) saving the time of the researcher.

Problems of Translation in India

(a) Lack of proper qualified/trained translators;
(b) Lack of quality/efficient translators
(c) Time lag due to lack of efficiency
(d) Language vs Subject Experts mismatch

(e) Delay in Translation work
(f) Lack of other agencies

83. Describe the objectives of twofold vocabulary control tools.

These are the tools used to control the vocabulary of indexing and retrieval. These are natural language tools, meaning that these tools contain natural language terms that can be used for indexing and retrieval purposes. What an indexer and an index user need is a set of guidelines for the proper selection of terms. Syndetic structures are devices that provide these guidelines by showing the relationships among terms or concepts, and they fall into two major categories: (1) classification schemes, and (2) subject heading lists and thesauri. Classification schemes, being tools for organizing knowledge, could be of great help for vocabulary control but the main body of classification schemes is organized in an artificial language. Whereas for vocabulary control we need natural language representation. Indexes to classification schemes could serve the role of vocabulary control but here terms appear alphabetically and thus the logical (semantic) organization of knowledge is not available. Some attempts have been made to combine the features of the main arrangement of classification schemes with those that appear in the index to the classification to generate some kind of faceted or classified thesaurus.

Subject heading lists and thesauri contain alphabetically arranged terms with necessary cross references and notes that can be used for indexing or searching in an information retrieval environment.

84. Types of documents

Conventional document – Book, periodical publication, map, atlas etc.

Neo-conventional document – Standard, specification, patent, data.

Non-conventional – Micro copy, audio, visual, audio visual

Meta document – Direct record unmediated by human mind

85. What is e-book?

An e-book is an electronic version of a traditional print book that can be read by using a personal computers or an e-book reader.

86. Concept of Information.

When data (discrete and unorganized piece of information) are processed, interpreted and presented in an organized or logical form to facilitate a better comprehension of the concerned topic or issue then it is called as information.

87. What are the difference between Information Society and Knowledge Society?

An information society is a society in which the creation, distribution, diffusion, use, and manipulation of information is a significant economic, political, and cultural activity.

Knowledge societies have the characteristic that knowledge forms major component of any human activity e.g. economic, social, cultural, and others.

88. What is Information Explosion?

Information explosion is a term that describes the rapidly increasing amount of published information and the effects of this abundance of data. As the amount of available data grows, the problem of managing the information becomes more difficult, which can lead to information overload.

In a recent study conducted at the School of Information Management and Systems at the University of California at Berkeley (UCB), USA, Professors Hal R. Varian and Peter Lyman have estimated that the world produces between 1 and 2 exabytes (exabyte = 10^{18} or 1,000,000, 000,000,000,000 bytes approx.) of unique information per year, or roughly 250 megabytes (megabyte = 10^{6} or 1,000,000 bytes approx.) for every man, woman and child on earth (The world population is calculated as 6,048,469,000 in the year 2000.). This is equivalent to the textual content of 250 books of approximate 169 pages each. Their study investigated the amount of *new* information stored in four storage media

(print, optical, film and magnetic), and asked how much storage would be required if it were all presented in digital form.

89. What is Information Diffusion?

The goal of information sharing is the systematic distribution and effective diffusion of information throughout the organization. Crane defines scientific growth and development as an explicit diffusion process. Crane identifies four stages of the process of the social diffusion of scientific knowledge. In the first, a new paradigm is just appearing, and there is little or no social to support the paradigm. In the second stage, a defined area of specialization comes into existence to support and exploit the paradigm, resulting in rapid growth of the social structure that supports the paradigm. During the third stage, growth slows as the social begins to question the paradigm, resulting in conflict and controversy. In the fourth and final stage, the conflict and controversy of the third stage take on the dimensions of crisis, and there is a decline of interest in the paradigm that may persist until the paradigm is rejected and attracts no further interest.

90. How information treated as a source?

Information treated as a valuable source which provides tremendous opportunities to accelerate the pace of development both at national as well as international levels. Information is a term with many meanings depending on context, but is as a rule closely related to such concepts as meaning, knowledge, instruction, communication, representation, and mental stimulus. Simply stated, information is a message received and understood. In terms of data, it can be defined as a collection of facts from which conclusions may be drawn. There are many other aspects of information since it is the knowledge acquired through study or experience or instruction. But overall, information is the result of processing, manipulating and organizing data in a way that adds to the knowledge of the person receiving it.

<u>Characteristics of information source</u>:

1. Non-expandable 2. Non-compressible 3. Non-substitutable 4. Non-transferable 5. Non-diffusive 6. Not shareable 7. Information value 8.

Measurable through bibliometric impact study 9. Used to gather information

91. How information treated as a process?

Information professionals have identified six main phases that comprise the 'information process', and have structured programmes for developing information literacy skills around these phases. The six phases are:

i. Defining information needs
ii. Locating information
iii. Selecting information
iv. Organising information
v. Creating and sharing information
vi. Valuating information and the information process

92. What is Technology Transfer?

Technology transfer is the process of sharing of skills, knowledge, technologies, methods of manufacturing, samples of manufacturing and facilities among industries, universities, governments and other institutions to ensure that scientific and technological developments are accessible to a wider range of users who can then further develop and exploit the technology into new products, processes, applications, materials or services.

93. Role of information in planning, management, socio-economic development.

The information required for planning can conveniently be subdivided into three categories: information on the external environment, information on the external market and internal information.

(i) <u>The External Environment</u>

a) Legislation, Policies and Government: Libraries do not operate in a vacuum, free to design their services to meet any objective they care to identify. They are controlled in the last resort by a body of legislation, at international, national and local level and this legislation prescribes their

activities. The librarian who is aware of such provision could be in a position to take initiatives which would not otherwise identified.
(b) Societal trends
(c) Technological changes
(d) Professional factors
(ii) The External Market
(a) User Demand
(b) Organizational Demand
(iii) Internal Information
(a) Where we are
(b) Where we want to be
(c) Available resources

Managerial activities

Fusion of science and technology as integrated framework of reference resulted offering much greater explanatory power. Technology is the instrumental mode of rational action, this new methodological development is also known as "intellectual technology" which constitutes a set of algorithm that are embodied in a computer programme to represent a formalization of judgements. Their routine application to many situations is becoming predominant in the management of organization and enterprises today.

Socio-economic Development

The organising principle for information systems and services today is a mix of Science. Technology and Social Information (STSI) Development, being a complex and multidimensional process, involves information and knowledge inputs of Science and Technology and their applications. They combine with other forms of society-related information such as political, economic, sociological, demographic, occupational, health, legal, regulatory and environmental information to provide a complete information universally. Development is said to be not merely cultivating the physical resources, but also human resources as well. Any imbalance in these development approaches weakens the overall capacity of a society to transform itself.

Information Technology has revolutionised information processing, storage, dissemination and distribution and has been the chief instrument and a major contributing factor to changes in society. These technologies

are not merely rapidly developing, but they are also converging and integrating, giving an unprecedented push to growth and development in every space.

The daily life of an ordinary person is dependent on the access to information for his day-to-day activities with the advent of IT, access to such information is made very easy such as News on current events, activities and personalities, weather, current programmes on television, radio, theatre, films, travel (road, rail, water and air), recipes, games and quizzes, information for children, consumer advice, health tips, home shopping, home banking, even encyclopaedic information, etc. A consumer today is also informed through a variety of trade literature and advertisements in newspapers, etc. Substantially the living standard on the socio-economic condition of the society has improved.

94. Discuss the concept of Communication.

Communication is the process of transferring information from a sender to a receiver with the use of a medium in which the communicated information is understood by both sender and receiver. It is a process that allows organisms to exchange information by several methods. Communication requires that all parties understand a common language that is exchanged.

Communication can be seen as processes of information transmission governed by three levels of semiotic rules:

1. Syntactic (formal properties of signs and symbols),
2. Pragmatic (concerned with the relations between signs/expressions and their users) and
3. Semantic (study of relationships between signs and symbols and what they represent).

95. What are the components of Communication?

Academic researchers have traditionally defined communication in accordance with the sender receiver model developed by Shannon and Weaver in their work on information theory. The main components are sender, message, transmission, noise, channel, reception, and receiver.

The somewhat passive notions of 'message', 'sender', and 'receiver' draw attention to the problems of effective communication.

S. Parthasarathi suggests following components:

1. Communicator: A person who generates the ideas, facts, data or information and transmit them to other people through speech, writings, teachings, etc. is a communicator.
2. Message: The information represented by the communicator, is the message. It would consist of ideas, facts, data & statistics treated uniformly before presentation.
3. Language: It is the carrier of the message. Thus, should be simple and easy to understand.
4. Medium: The means of transmitting information are called mediums of communication. It may reach in a number of ways like formal, informal or audiovisual means depending upon the audience. The formal means like books, periodicals, standards, monographs, etc. are meant for scientists, research scholars, students etc. Similarly for the audience constituting of children, adolescents, illiterates, the audio-visual medium is most suitable. It is in the form of illustrations, Charts, maps, slides, films, videotapes, etc. So the medium has an important role to play in the optimum utilisation and effectiveness of communication.
5. Recipient: The person who requires the information makes use of that information and ultimate receiver of the message is called the recipient. He is one who decides whether a particular information is clear in understanding or the medium used to communicate was efficient enough or not.

96. Discuss the models of Communication.

According to Oxford English Dictionary Communication can be defined as "the imparting, covering or exchange of ideas and knowledge whether by speech, writing or signs". It can be said that communication is based on a relationship and this relationship may exist between two persons, or between one person and many, or between collective society and an individual, and between collective society and an individual, and between society and a group.

The Shannon–Weaver model of communication has been called the "mother of all models." It embodies the concepts of information source, message, transmitter, signal, channel, noise, receiver, information destination, probability of error, coding, decoding, information rate, channel capacity, etc.

Communication process always requires at least three basic elements – the source, the message, and the destination.

Basic elements of the Communication Process

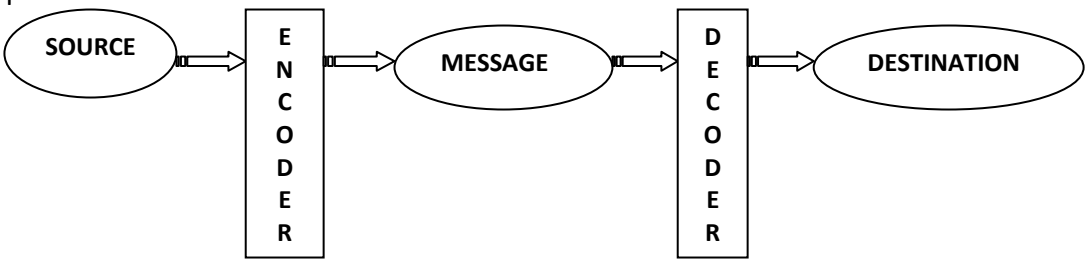
Source is the point at which the messages originate. It is, therefore, also referred to as sender or initiator of information. A source may be an individual (speaking, writing, drawing, gesturing) or a communication s like newspaper, publishing house, television station, motion picture studio etc.

Message may be in the form of written or printed text, sound or light waves in the air, impulses in the electric current, or in the form of any other signal which is capable of being interpreted meaningfully.

Destination is the intended target of the message. Destination could be an individual or a group or a mob. The recipient gets the message in the form of reading, listening, watching etc. Destination is the final level in the communication chain.

Two more steps have to be added in the communication process.

First step Encoder encodes the message to be transmitted, into a form suitable for transmission. They may be coded in the form of signs, symbols spoken or written words etc. In order to complete the act of communication, the message needs to be decoded at the receiver's end. This is necessary for the proper interpretation of the message by the receiver. Thus decoding is the second step added in the communication process.



Communication Process with Encoder and Decoder

Encoder: The function of the encoder is to translate the thought or ideas into words, signs, signals etc., which combined together, constitute a message or information.

Decoder: The process of translation of the message or information by the receiver is known as decoding. The function of the decoder is to interpret the information or messages. A decoder could be anything ranging from human beings, telephone receiver to computers. In the case of electromagnetic transfer of information through various types of channels, the message is transformed into signals before being transferred. At the receiver end, the signals need to be transformed back into original form which is done by the decoder.

97. What is Patent?

Patent is an exclusive right granted for an invention. A patent is granted to a person who has invented a new and useful article or a new process of making an article or has improved an existing article.

98. What is Censorship?

Censorship is the suppression of speech or deletion of communicative material which may be considered objectionable, harmful or sensitive, as determined by a censor. The rationale for censorship is different for various types of data censored. Censorship is the act or practice of removing material from things we encounter every day on the grounds that it is obscene, vulgar, and/or highly objectionable. Whether it is on TV, in music, books, or on the Internet, censorship is an inescapable part of human society.

Censorship can be broken into different categories:

i) Moral censorship ii) Military censorship iii) Political censorship iv) Religious censorship v) Corporate censorship.

99. Define Six Sigma. Discuss the application of six sigma in library and information centres.

Definition of Six Sigma:

Six Sigma stands for six standard deviations (Sigma is the Greek letter used to represent standard deviation in statistics) from mean. Six Sigma methodologies provide the techniques and tools to improve the capability and reduce the defects in any process. (Sig Sigma Tutorial)

Six Sigma techniques were first pioneered by Mikel Harry and Bill Smith (Motorola Companies), manufacturing division in 1986.

Six Sigma (6σ) is a methodology to manage process variations that cause defects. It can be defined as a rigorous and disciplined methodology that utilizes data and statistical analysis to measure and improve a company's operational performance, practices and systems.

Six Sigma uses a handful of powerful tools of statistics instead of getting lost in over 400 tools of Total Quality Management (TQM). The beauty of these methods in its ability to use these tools in a model known as DMAIC (Define-Measure-Analyse-Improve-Control).

Application in Library and Information Centres (LICs):

Concepts of Six Sigma in LICs:

Six Sigma involves around a few key concepts. These are as follows:

1. Critical to Quality: Attributes most important to the users/readers;
2. Defect: Failing to deliver what the users/ readers wants;
3. Process Capability: What your process can deliver the service to the users;
4. Variation: The customer i.e., user/reader sees and feels;
5. Stable Operations: Ensuring consistent, predictable processes to improve what the users/readers see and feel about the service;
6. Design for Six Sigma: Designing to meet users/readers need and process capability.

Need:

LIC is a non-profit service providing organization which caters to the needs of its users. Users come first always. They are most important people to be served. They are not dependent on the library rather library depends on them. So, customer (i.e., user) centred approach seen as route to gain competitive advantage. It is the single most vital factor for success of LICs. Most of the organizations are now practicing quality improvement management techniques which ultimately aims at achieving total customer satisfaction. Sig Sigma technique is one such quality

management techniques that helps on developing and delivering near perfect services to the users.

100. Mention the types of print media/source.

Print medias/sources are: i) Conventional ii) Non-conventional iii) Neo-Conventional iv) Meta Print Media.

Examples of print media/source are: i) Text Books, Reference Books ii) Journals/Periodicals iii) Magazines iv) Newspapers v) Images vi) Maps/Charts vi) Exhibitions vii) Newsletter viii) White Papers ix) Conference Proceedings x) Reports xi) Printed database xii) Catalogue card .

101. Mention the types of non-print/electronic media/source.

The non-print media collection includes kits, games, cassette and disc recordings, pictures, posters, study prints, and slides. Using this collection, you can listen to Spanish tapes or an old radio drama; you can look at the picture of a butterfly or the slide of a painting by Van Gogh; you can play a game simulating a historical era or one that teaches you how to construct a sentence.

E-Databases, E-Journals, E-Magazines, E-Books/Wiki Books/E-Audios/E-Music, E-News, E-Images, Data/GIS, Digital Library Projects, Electronic Exhibitions, E-Subject Guides, E-Newsletter, E-White Papers, E-Conference Proceedings, E-Reports, E-Studies, E-Interesting Development, E-Directories, OPAC, Web Search Tools on a range of topic.

102. Discuss the laws of Library Science? Or, Define scope of Library Laws.

<u>First Law – “Books are for use”</u>

This law focuses on the selective use of information. For proper uses of information there should be proper storage and dissemination of information. Library or information professionals have always kept in their mind that, they have to serve “Right information, to Right user at the Right time”.

<u>Second Law – “Every reader his/her books”</u>

Second Law is user oriented law. Every citizen has the right to access the information (Right to Information Act, 2005). This law guides the library or information professionals to take care of information users, so that they can access information without any obstacle. Here is a necessity of User Survey, User Study and User Education. User Orientation may help in acquiring the need and satisfying the purpose.

Third Law - "Every books its reader"

Third Law is information oriented. Every piece of information should be serving to users. Thus information professionals have to organize the information in such a manner that maximum information is used by user correctly and properly.

Automated technical process of the library collection such as Cataloguing, Indexing, and Abstracting etc. helps user in the context of the third law of library science.

Fourth Law – "Save the time of user"

This law highlighted on, how fast information can be delivered to its end users.

Fifth Law – "Library is a Growing Organism"

Keeping in view the information available and growth in the area, it is impossible for the single library to acquire all the information of a subject. There is space problem, staff problem and most importantly the fund problem every library has. In the present electronic age, resources are available in electronic forms, such CD-ROM, DVD, VCD, Optical Disks. Due to availability in electronic format of the resources, space problem of the library gets no sense and smaller place can acquire billions of collection. The main problem of the library is availability of inadequate funds. In that case resource sharing and networking between libraries and information centres are very much essential. To short out the library budget problem, consortium approach has come to the picture making libraries agreeing to share the resources under common platform.

103. Discuss the library extension services.

Libraries have now-a-days developed certain new types of work in addition to the normal work of the library such as OPAC, E-Journals search, reference services etc. This extension of the normal work of the library to other related and associated fields of activities may be referred to as 'extension service' of libraries. More positive way in which the library service can be promoted is by publicity. It makes a direct special appeal to each reader. He not only realises the existence of the library in his neighbourhood, but also feels the necessity as to why he should use it. This publicity is done by (i) printed publicity – book lists, folders, booklets, catalogues etc.; (ii) talks to local audiences, (iii) inclusion of stories in the local press, (iv) publicity on local radio and television programmes (v) display the news of library service (vi) adult education (vii) formation of reading circles (viii) story hours (ix) festivals and fairs.

104. What are the objectives of UNESCO?

In the field of librarianship the activities of the UNESCO fall into three main divisions: department of libraries; bibliography and documentation; international exchange of publications. To these must be added the important contribution of UNESCO to archives, international copyright and the book coupon scheme.

It does not act as a link between the world's library associations as IFLA does. UNESCO has concerned itself more with the task of spreading the library idea for and wide throughout the world. It has been the job of the UNESCO working from its Paris headquarters to introduce libraries to those countries which have not had the benefit of them, and to foster their development. The Library Division of UNESCO has done splendid work to this end. It has organised pilot projects in India.

105. What are the objectives of ALA?

The American Library Association (ALA) was founded in 1876. It is the oldest and the largest national library association in the world. The association is known as ALA. The Association has concerned itself with the raising of standards for the library profession serving as a centre of information on all library subjects holding conferences, issuing library publications, planning for the future of school, college and public libraries. The ALA has the same objective to increase the use and usefulness of

books through improving and extending library services. The international activities of the Association are concerned with the interchange of librarians and publications, importation of foreign books and journals in scholarly fields and preparation for rehabilitating devastated libraries in war areas.

106. What are the objectives of ILA?

Objectives of ILA's are: (i) Promotion of library movement and improvement in library services in all its aspects in India (ii) Promotion of library science education and the improvement in the training of libraries in India (iii) Improvement in the status and conditions of service of librarians (iv) Promotion of bibliographical study and research in library science (v) Affiliation of state and other library associations with the ILA and cooperation with international s with similar objects (vi) Publications of bulletins, periodicals and books that will lead to the realization of the objects of the association (vii) Establishment of libraries, documentation and information centres and assistance in their establishment of working (viii) Promotion of appropriate library legislation in India.

107. What are the objectives of IASLIC?

Objectives of IASLIC's are : (i) To promote the quality of LIS; (ii) To coordinate the activities of and (iii) To foster mutual co-operation and assistance among the special libraries, scientific, technological and research institutions, learned societies, commercial s, industrial research establishments as well as centres of studies in social sciences and humanities; (iv) To improve the technical efficiency of the workers; (v) To act as a centre of research and studies in special librarianship and documentation techniques; (vi) To act as a centre of information in scientific, technical and other related fields of Library and Information Science.

The general body of members biennially elects 14 office-bearers and 20 members of the Council, which is the highest organ to formulate the policies and programmes of work. The Council appoints from among its members the Executive and Finance Committee consisting of 8 office-bearers and 4 members to manage the regular activities. Six Divisions are also constituted as follows, by the Council for each term:

1. Documentation Services 2. Education 3. Publication and Publicity 4. Library Services 5. Documentary Reproduction and Transition 6. Cooperation and Coordination of Libraries.

The IASLIC holds a biennial seminar and a conference in alternate years. Current problems of libraries and information services and other allied areas are selected as themes for discussion on these occasions. 20 Seminars and 24 Conferences had taken place at different research and academic institutions in various parts of the country up to 2003. IASLIC has submitted its recommendations to the report of 6th Pay Commission. The rejoinder is addressed to the Chairperson of Pay Commission.

108. Discuss about secondary sources.

Information sources which are prepared to facilitate the users to search the primary sources e.g., indexing and abstracting services, reviews of progress (state-of-the art report, reference books (e.g., encyclopedias, dictionaries, handbooks, tables, formularies etc.), treaties, monographs, textbooks, etc.

Secondary sources of information are those which are either compiled from or refer to primary sources of information. These contain information regarding primary or original information. The original information having been usually modified, selected or reorganized so as to serve a definite purpose or group of users. Such sources contain information arranged and organized on the basis of some definite plan. These contain organized repackaged knowledge rather than new knowledge. Information given in primary sources is made available in a more convenient form. Due to their very nature, secondary sources are more easily and widely available than primary sources. These not only provide digested information but also serve as bibliographical key to primary sources of information. The primary sources are the first to appear, these are followed by secondary sources.

109. Discuss about tertiary sources.

Information sources which are prepared to facilitate the users to search the secondary sources e.g., yearbooks and directories, bibliographies (list of books, location lists of periodicals, list of indexing and abstracting services), guide to literature, lists of research in progress,

guides to libraries, and sources of information, guide to persons, organizations, manufacturers or periodicals etc.

Tertiary sources of information contain information distilled and collected from primary and secondary sources. The primary function of tertiary sources of information is to aid the searcher of information in the use of primary and secondary sources of information. Most of these sources do not contain subject knowledge. Due to increase in literature, tertiary sources are becoming increasingly important. Out of various kind of sources, tertiary sources are the last to appear.

110. What is the difference between documentary and non-documentary sources?

Documentary sources means Primary, Secondary and Tertiary sources – (The primary sources are the first to appear. Secondary sources come out next. The tertiary are the last to appear). Non-documentary sources means Formal and Informal sources.

Examples of Primary sources are Periodicals, Research Monographs, Research Reports, Patents, Standards, Trade Literature, Dissertations, unpublished sources.

Secondary sources are Indexes, Bibliographies, Indexing Periodicals, Abstracting Periodicals, Reviews, Treatises, Monographs, Textbooks, Encyclopaedias, Dictionaries, handbooks, Manuals, Tables, Translations.

Tertiary Sources are Bibliography of Bibliographies, Directories, Guides to Literature.

Non-Documentary sources of information form a substantial part of communication especially in science and technology. Users' studies have underlined importance of such sources. Formal sources include research s, societies, industries, government departments, universities, consultant etc. Informal sources include conversion with colleagues, visitors, attendance at professional meetings etc. Informal sources are live sources which are extremely important in the process of communication.

111. Reference source – concept.

From which source (s) users can get ready reference service to fulfil their information needs those sources can be called as Reference source.

We may recognise two categories of books, namely, those which can be read through for information or education or inspiration and ones which are meant to be consulted or referred to for a definite piece of information. The borderline between the two categories is not a hard or fast one. The second category is called reference books. These include encyclopaedias, dictionaries, handbooks, tables, yearbooks, formularies, etc. These are compiled so that everyday information can be provided readily. Reference books form the basis of reference service in a library. The quality of reference collection available in a library is very important for the success of reference service.

112. Define Union catalogue.

According to K. Larsen, "a catalogue listing in one sequence the holding or part of holdings of two or more libraries". The main objectives are to facilitate inter-library loan, procurement of reprographic copies etc.

113. Indexing and abstracting journals

Abstracting Journals:
(i) Biological Abstracts (ii) Sociological Abstracts (iii) Indian Science abstracts (iv) Indian Dissertation Abstracts (v) Library and Information Science Abstracts (vi) Indian Library Science Abstracts
Indexing Journals:
(i) Engineering Index (ii) Humanities Index (iii) Index Medicus (iv) Current Technology Index (v) INIS Atom Index (vi) Agrindex

114. E-journals

Journals available in electronic media called e-journals. They are being processed and published (receiving, refereeing, editorial work etc.) through electronic media. Such journals in electronic media are often known as virtual sources, paperless journals, online journals, and most popularly known as e-journals. An e-journal, like any other serial is produced, published and distributed all over the world via electronic network. Some may be available both in electronic media and in print.

115. Database – concept

An automated body of information that is systematically recorded, retrieved or updated. Database is also known as databank alternatively. In the field librarianship 'databank' or 'database' are the details of 'bibliographic references' which the reader uses for studies. There are mainly two types of database, 1. Reference database e.g., Bibliographic, Catalogue, Referral, Directory; 2. Source database e.g., Numeric, Full text, Alpha Numeric.

116. Reference vs. Information Services

Traditionally speaking information service and reference service are two different kinds of services. However, the borderline between the two is not very sharp.
The main differences in the two services are described below:

Sl. No.	Reference Service	Sl. No.	Information Service
1	It refers to traditional approach.	1	It denotes non-traditional approach.
2	Emphasis is to provide information.	2	Emphasis is to provide documents.
3	Most often the user is directed to material or given the material rather than provided ready information and he is expected to locate information himself.	3	An attempt is to provide exact information.
4	It is more concerned with provision of information on demand that is the provision of answers to specific inquiries.	4	It lays emphasis on providing information in anticipation.
5	The staff waits for the user to approach and make demand for a document/information.	5	The staff does not wait for the user but goes ahead with the job. It goes out of the way to

			assist him and keep him informed.
6	One of the aims is to instruct the user in the use of the resources of the library. He is provided instruction (that is user education) so that he can get information or documents on his own.	6	There is less concern towards instruction in information service.

117. Bibliographic services

A bibliographic service is defined, "as the complex of facilities, procedures and devices by which a bibliography may be supplied, at a stated time, to fill a distinctive need." Thus a bibliographical service consists of components which determine the quality of service. Each service of this type is intended to serve a distinctive need. We can judge the efficiency of such a service by finding out how far it has been able to satisfy the need for which it was planned.

118. Indexing and abstracting service.

The abstracting and indexing services are the secondary information services i.e. instead of providing itself, they are providing information about information. On the one hand screening out the trivial literature and on the other hand they are striving diligently to increase coverage of world's literature in order to cope with the increase in publication. According to SDC report 56 percent of the total literature covered by abstracting and indexing services (an estimated 1,440,000 papers in 1966) is covered by abstracts, and the remainder by citations (1,133,000).

119. Discuss CAS.

C = Information should be current in content
A = Comprehensive or amount of information
S = Service pattern is very quick

It is a device for information system through which all users can be informed promptly as soon as possible after the publication but before the absorption into secondary documents of current literature selected from a broad subject field or an area in which a group of persons are interested and presented in such a manner to facilitate or cultivate current approach to information.

120. Discuss SDI.

According to Hans Peter Luhn "the SDI is that service within an organization which concerns itself with the channeling of new items of information from whatever source to those points within the where the probability of usefulness in connection with the current works or interests is high".

121. Discuss digest service.

Survey of the primary literature (i.e. review) aims to digest and correlate the literature over a given period. It also indicates the developments and trends in the field concerned. It may appear as a collection of papers on regular basis (annual or quarterly or monthly) or in the form of an article in a periodical. A review provides background information to a new problem in a suitable form and serves as a key to literature. List of references given in a review can serve as a first rate bibliography of the concerned subject for a period covered by it. This review service is known as digest service e.g. *Annual Review of Information Science and Technology*.

These are the kind of yearbooks which provide current information but their historical value should not be overlooked.

While much of their text is repeated with appropriate updating from year to year unlike, for example, the pure Annual register type yearbooks whose content each year is unique. They can be invaluable for ascertaining the exact status at a particular point in time of an international organization or a country.

122. Elucidate the concept, aims and preparation of trend report?

A Trend Report is an exposition of a subject, giving an account of the general direction of research in the subject, based on a review of the

documents on current developments. The trend report service is designed to help the specialist reader in the productive utilization of his time and in the conservation of the research potential. The training of a documentalist equips him to do this service satisfactorily.

In the age of information explosion and with the increasing number of documents as well as reader requirements the already existing documentation services like indexing/abstracting just cannot cope with the specific subject requirements of the specialist reader by acquainting him with the recent developments and research conducted in the particular subject. With the help of trend reports the specialist reader can utilize his time more effectively in research.

Aims of Trend Report

The main aim of Trend Report is to fulfil the requirement of a specialist user of specific information on a particular subject. It is highly useful tool to analyse and consolidate the information which facilitates the specialists in their research work. Trend Reports may be adhoc documents in a particular subject or sometimes serial publications, which generally are produced in house by so many research and development organizations.

Preparation of Trend Report

The preparation of trend report on a specific subject by the documentalist is a useful library service. Earlier the subject specialist was preparing the trend report on the basis of documents available in the library. Recently new techniques have developed in the field of Library and Information Science to analyse a subject. That is why the documentalist is in a position to view the subject in the proper perspective.

The documentalist should posses the following qualities for the preparation of a trend report:

(i) Proper knowledge regarding the method of compiling a trend report is essential;

(ii) He should also have proper report with the concerned specialist reader to know his subject approach and views;

(iii) Familiarity with sources of information in the concerned subject is necessary. A trend report is oriented towards a specific subject.

123. What is online service?

Service from the remote databases of information using a PC and intranet/Internet. This information can be searched and retrieved in a very flexible way, and captured electronically onto a file. Some of the online services available in India are NIC's Medical Information Service, NISCAIR's National Union Catalogue of Scientific Serials (NUCSSI), Current Contents of Indian Journals in Science and Technology, and databases in certain specialised subject such as Polymer Science, Indian Patents, and Indian Standards etc.

124. Modes of formation of subjects

In 1950, Ranganathan put forward the viewpoint that subjects in the universe of knowledge can be formed by means of four modes of formation; these are loose assemblage, lamination, dissection and denudation.

The following are the modes of formation of subjects and isolates, or relations between the components of a subject:
1. Loose assemblage 2. Lamination 3. Fission 4. Fusion 5. Distillation 6. Agglomeration; and 7. Cluster.

125. Library Classification – canons and principles

Ranganathan recognized three planes of work, namely, idea plane, verbal plane and notational plane. The design and application of classification schemes involves work in these three planes.
<u>In Idea Plane, there are five sets of canons</u>. These are:
(a) Canons for characteristics (b) Canons of succession of characteristics (c) Canons of array (d) Canons of chain (e) Canons for filiatory sequence.
<u>Canon for characteristics :</u>
(i) Canon of differentiation (ii) Canon of relevance (iii) canon of ascertainability; and (iv) Canon of permanence.
<u>Canon for succession of characteristics :</u>
(i) Canon of concomitance (ii) Canon of relevant succession (iii) Canon of consistent succession.
<u>Canons for Array</u>:
(i) Canon of exhaustiveness (ii) Canon of exclusiveness (iii) Canon of helpful sequence (iv) Canon of consistent sequence
<u>Canons for Chain</u>:
(i) Canon of decreasing extension (ii) Canon of modulation

Canons for Filiatory Sequence
(i) Canon for subordinate classes (ii) Canon for coordinate classes

Corresponding to terminology, we get the following *canons for work at the verbal plane*:
(a) Canon of context (b) Canon of enumeration (c) Canon of currency (d) Canon of reticence.
The notational system used for its classification should satisfy a certain set of canons called basic canons for notation. It should also satisfy the canons for mnemonics. An additional set of canons is required for the notational system of an ever-growing universe.
Basic canons for notation:
A. (a) Canon of synonym (b) Canon of homonym
B. Five pairs of canons:
(a) Canon of relativity and canon of uniformity (b) Canon of hierarchy and canon of non-hierarchy (c) Canon of mixed notation and canon of pure notation (d) Canon of faceted notation and non-faceted notation; and (e) Canon of co-extensiveness and under-extensiveness.
Ranganathan favoured the first canon in each of the above pairs of canons.
Canons of mnemonics:
(a) General canon of mnemonics (b) Canon of alphabetical mnemonics (c) Canon of scheduled mnemonics (d) Canon of systematic mnemonics (e) Canon of seminar mnemonics.
Canons for growing universe:
(a) Canon of extrapolation in array (b) Canon interpolation in array (c) Canon of extrapolation in chain; and (d) Canon of interpolation in chain.
Canons of Book Classification :
(a) Canon of book number (b) canon of collection number; and (c) Canon of distinctiveness

126. Discuss about various editions of Colon Classification.

Shiyali Ramamrita Ranganathan Iyer, the author of Colon Classification. In 1933, first edition of Colon Classification was published. In this edition, schedules were provided for different facets in each basic class. The colon was used as a notational device for synthesis. The use of the symbol ":" was an important part of the scheme. Therefore, the scheme was named Colon Classification.

CC1(1933) had the following features:

1. It provided schedules for different facets in each basic class.
2. It provided special schedules for common subdivisions, geographical divisions, chronological divisions and language divisions.
3. It provided rules for the construction of class numbers by means of combining the numbers taken from different facets within a given basic class. The : (colon) was used to combine numbers.
4. It used mixed notation, consisting of capital letters, small letters, Arabic numerals and the colon. Use of mixed notation allowed for a wide base.
5. It used decimal fraction notation, as well as octave notation for the purpose of hospitality in array.
6. It used eight special devices: the colon device, geographical device, chronological device, favoured category device, classic device, alphabetic device, subject device and bias number device.
7. It gave a new procedure for constructing the book number, so that the books having the same class number could be individualized, and
8. It used the concept of phases.

CC2 (1939)

Attempts were made to remove, in the 2nd edition, the faults discovered in CC1. This edition incorporated a number of improvements. It used, for the first time, the concept of fundamental categories (personality, matter, energy, space and time) to serve as the basis of classification.

CC3 (1950)

This edition provided a facet formula for each basic class in terms of fundamental categories.

CC4 (1952)

Different indicator digits for different facets going with different fundamental categories were made use of, as illustrated below:

, (comma) for personality
; (semi-colon) for matter
: (colon) for energy
. (dot) for space
. (dot) for time

The above change was based on the concept of optional facets. The introduction of the above indicator digits led to a reconstruction of the scheme.

The edition also introduced the concepts of rounds and levels. The concept of fundamental categories was used in a concrete manner.

CC5 (1957)

It introduced substantial changes in the rules and in various schedules.

The following schedules were revised:

(i) Management and labour
(ii) Agriculture
(iii) Fine Arts
(iv) Geographical isolates for India
(v) Law

CC6 (1960)

Substantial changes were made in the various schedules. The following schedules were revised:

(i) Second level time and space isolates
(ii) Education
(iii) Nuclear physics and nuclear engineering
(iv) Common energy isolates

An attempt was made, in this edition, to avoid the use of Greek Letters.

The sixth edition was reprinted in 1963, with some important amendments. The major change was the introduction of an indicator digit – the inverted comma (‘) instead of dot (.) for the time facet.

CC7

The schedule of basic subjects being used for the 7th edition of Colon Classification has been given by A.Neelameghan, M.A.Gopinath and S.Seetharama.

CC is a serial system. Therefore, applied sciences have been placed after fundamental sciences, on which they are dependent. Mysticism and spiritual experience deal with knowledge achieved through intuition. Therefore, this subject has been placed at the centre. First, we proceed from abstraction to concreteness. After the centre, we move from naturalness to artificiality: for instance, physics is less concrete than

chemistry. Political science is more artificial than history. Law is considered very artificial. Therefore, it has been placed at the last position.

CC7 provides a small schedule of basic classes. The isolates going with each facet in different basic classes are given (sometimes, one is expected to get the isolate number through a device). In addition, common isolates are also listed. Thus the class numbers are not readily provided, but have to be constructed. In other words, the schedules in CC7 (as also in the previous editions) consist of certain standard pieces in a meccano set. By combining these standard pieces, one can construct a variety of objects. Similarly, by combining the standard unit schedules through various permutations and combinations, one can construct the class numbers for different specific subjects. The indicator digits serve as nuts and bolts.CC7 is a freely faceted analytic-synthetic scheme, because the sequence of component ideas in a compound subject can be analysed on the basis of a set of guiding principles, and not merely determined with the help of a predetermined facet formula.

127. What is Customer satisfaction?

People who use the libraries are often called users, readers, patrons, or clients. The term 'customer' is applied to the library setting when libraries start to implement customer service strategies. A 'custmer' seeks a product or a service, and spends money, time or energy in the process. Customers have expectations and needs, and those expectations and needs must be translated into service in libraries.

It is obvious that library management action needs to focus on the service areas that are highly valued by customers. The effective customer service establishes sustainable communication between the library and the users which helps in creating customer loyalty and long-term relationships and ultimately customer satisfaction. Customers' satisfaction level judges the accuracy and reliability of the information.

128. Elucidate meaning and features of MARC.

MARC is an acronym that stands for MAchine-Readable Cataloging. The MARC standards consist of the MARC formats, which are standards for the representation and communication of bibliographic and related information in machine-readable form, and related documentation. It

defines a bibliographic data format that was developed by Henriette Avram at the Library of Congress beginning in the 1960s. It provides the protocol by which computers exchange, use, and interprets bibliographic information. Its data elements make up the foundation of most library catalogues used today.

The record structure of MARC is an implementation of ISO 2709, also known as ANSI/NISO Z39.2. MARC records are composed of three elements: the record structure, the content designation, and the data content of the record. The record structure implements national and international standards (e.g., Z39.2, ISO 2709). The content designation is "the codes and conventions established to identify explicitly and characterize ... data elements within a record" and support their manipulation. The content of data elements in MARC records is defined by standards outside the formats such as AACR2, Library of Congress Subject Headings, and Medical Subject Headings (MeSH).

The future of the MARC formats is a matter of some debate in the worldwide library science community. On the one hand, the storage formats are quite complex and are based on outdated technology. On the other, there is no alternative bibliographic format with an equivalent degree of granularity. The huge user base, billions of records in tens of thousands of individual libraries (including over 50,000,000 belonging to the OCLC consortium alone), also creates inertia.

The structure of MARC II can be compared to an empty container, provides the basic machine framework of the record. The format of MARC II structure includes: Leader, Record directory, Variable fields.

Each MARC record contains a leader as the first 24 characters, and the leader provides information about the ensuing record such as the total length of the record, the type of the record code, or the bibliographic level. The type of record code specifies the form of material described in the record. The bibliographic level code denotes the relationship of the work to another bibliographic entity. Record directory shows what variable fields are in the record and their location in the record. There is a 12 characters record directory for each variable field. The existence of a record directory allows one to have variable field. The existence of a

record directory allows one to have variable fields in any order. The record directory also helps in the retrieval of select fields from the record.

Features of MARC-II Format

MARC-II is a unique work in the field of cataloguing in the world. The organization of cataloguing of documents in it done by a central agency. There are following salient features of MARC format.

1. In addition of books, the films, maps, atlases, periodicals and serials are included in it for cataloguing.
2. It facilitates in magnetic tapes the documents published not only after 1969 but also the retrospective documents published before 1969, the year it was started.
3. Databases in magnetic tapes are recorded in it and print catalogues are prepared from those magnetic tapes.
4. It provides copies of magnetic tapes.
5. The bibliographies can also be compiled with the help of the computer in this format.
6. BNB also used it with the help of LC.
7. It is also used to prepare cumulative volumes and printed cards.
8. Now it is also available in online form.

However, MARC format does not deal with semantic aspects, even then it is the most influential record format. It is the format for communication only, but later it became internal processing format in order to be useable. This format both by its structure and the content designators, has caused a revolution in the creation of bibliographic databases.

129. Explain the meaning, uses, structure of CCF.

Genesis

As a direct result of the International Symposium on Bibliographic Exchange Formats with the initiation by the UNESCO General Information Programme in April 1978 in Taormina, Sicily organised by UNISIST International Centre for Bibliographic Description in collaboration with International Council of Scientific Unions Abstracting Board, IFLA and ISO, an Adhoc Group was constituted for developing the Common

Communication Format (CCF). After prolonged deliberations and discussions by the experts, the Group decided:

(1) That the structure of the new format would be in accordance with the ISO 2709

(2) That the core record would consist of a small number of mandatory data elements essential to bibliographic description, identified in a standard manner.

(3) That the core record would be larger in number by adding optional data elements, identified in a standard manner

(4) That a standard technique would be developed for accommodating levels, relationships, and links between bibliographic entities

Need for CCF

The need of CCF is of paramount importance of two or more s wish to examine records with one another. It cannot be achieved unless exchange purposes.

If there is a single national standard exchange format, information interchange within that country is possible so also will be greatly facilitated both technically and economically. But on the other hand, if each nation's standard format is different from all others, then it will be more problematic and complex to have international information interchange among national bibliographic agencies because of the number of computer programmes that must be written to accommodate the translation of records from one format to another.

The other crucial factor is to go for a common and compatible format is to achieve uniformity, standardisation and consistency among different kinds of agencies creating bibliographic records. The goals of some of these differ greatly from the goals of others. Abstracting and indexing agencies tend to operate differently from most libraries and must work within different limits and constraints. Hence, various kinds of rules for bibliographic description have come into common use which ultimately gives rise to the creation and distribution of widely varying and mostly incompatible bibliographic records contained within equally varied and incompatible formats.

Scope and Uses:

The Common Communication Format (CCF) is designed to provide a standard format for three major purposes:

(i) To permit the exchange of bibliographic records between groups of libraries and abstracting and indexing services

(ii) To permit a bibliographic agency to use a single set of computer programmes to manipulate bibliographic records received from both libraries and abstracting and indexing services.

(iii) To serve as the basis of a format for an agency's own bibliographic database, by providing a list of useful data elements. To assist the development of individual systems, other UNESCO documentation will provide implementation notes for the CCF, and a guide for AACR2 cataloguers who use the CCF.

Structures

The record structure of the Common Communication Format constitutes a specific implementation of the international standard ISO 2709. Each CCF record consists of four major parts:

i) Record label: Each CCF record beings with a level of 24 characters.

ii) Directory: Directory is of 14 characters length and comprises of 5 parts

iii) Datafields: There are four basic components to a data field, they are indicators, subfield identifier, subfield, field separator

iv) Record separator: The last data field separator is followed by the record separator which is the final character of the record

When building a physical volume (magnetic type or disk) of bibliographic records, consideration must be given to the structure of the volume.

CCF/B: The Common Communication Format for Bibliographic Information. Paris. Unesco, 1992. 193p. (PGI-92/WS/9)

CCF/F: The Common Communication Format for Factual information. Paris. Unesco, 1992. 192p.

The above two publications replace the second edition of the CCF published in 1988. The CCF provides detailed and structured method for recording data elements in a computer readable record for exchange purpose between two or more computer based systems.

130. POSDCORB

The functions of management are as follows:

Planning: The first function of an administrator is to plan and forecast i.e. determining the goals and ideas of an institution. The ways and means to achieve these objectives are thought out on a plenary basis.

Organising: Planning to be fruitful needs a sound organization, which means that such a structure of authority is established which is capable of achieving the set goals.

Staffing: An organization for its efficient working is totally dependent upon proper staffing and recruiting policies. The staff employed should have special aptitudes and capabilities for performing a particular kind of job.

Directing: The harmony and efficiency of the staff depends upon the personal qualities of the chief librarian. He should be capable of performing his duties as a leader. It implies that besides possessing knowledge, he should be able to infuse confidence amongst the staff members. He should be able to boost up their morale.

Co-ordinating: Leadership will be successful only if the leader can properly inter-relate various parts of an organization in a harmonious way. This co-ordination can be achieved if the head knows well all the jobs and affects such an automatic administrative machinery that he feels practically no necessity to interfere.

Reporting: Reporting means keeping authorities, to whom the executive head of an organization is responsible, informed about the progress or regress of his work. To perform this duty efficiently, the executive head has to keep himself and his subordinates informed about their jobs and performances through research, records and inspection.

Budgeting: Budgeting includes fiscal planning, accounting and control. No organization can function properly without adequate finances. But it is difficult to obtain enough funds for all kinds of s especially libraries, which are dependent and spending bodies.

131. Collection Development

Content Development embraces content analysis, content creation and content management. It is collaborative and interactive process requires multidisciplinary approach. Content development is the collecting, categorizing, organizing, editing and disseminating the content to its intended users. This highly complex job can be constituted with the intense involvement of people from different areas: author i.e. intellectual

contributor of the content, information architect i.e. designer of the website, editors, LIS professionals, readers or users. Proper combinations of these can make a website successful.

132. Manpower Planning/What is the significance of manpower planning in an organization?

The plans need to be supported by all the members of the organization. Planning is making a decision in advance what is to be done. It is the willpower of course of action to achieve the desired results. It is a kind of future picture where events are sketched. It can be defined as a mental process requiring the use of intellectual faculty, imagination, foresight and sound judgement.

133. Job Analysis

Job Analysis refers to various methodologies for analyzing the requirements of a job.

The general purpose of job analysis is to document the requirements of a job and the work performed. Job and task analysis is performed as a preliminary to successive actions, including to define a job domain, write a job description, create performance appraisals, selection and promotion, training needs assessment, compensation, and al analysis/planning.

134. Job Description

A job description is a list of the general tasks, or functions, and responsibilities of a position. Typically, it also includes to whom the position reports, specifications such as the qualifications needed by the person in the job, salary range for the position, etc. A job description is usually developed by conducting a job analysis, which includes examining the tasks and sequences of tasks necessary to perform the job. The analysis looks at the areas of knowledge and skills needed by the job. Note that a role is the set of responsibilities or expected results associated with a job. A job usually includes several roles.

135. Leadership

The word leadership can refer to

1. The ability to affect human behavior so as to accomplish a mission.
2. Influencing a group of people to move towards its goal setting or goal achievement

Leadership has a formal aspect (as in most political or business leadership) or an informal one (as in most friendships). Speaking of "leadership" (the abstract term) rather than of "leading" (the action) usually it implies that the entities doing the leading have some "leadership skills" or competencies.

136. Performance Evaluation

Performance evaluation is a necessary and benefical process, which provides annual feedback to staff members about job effectiveness and career guidance. The performance review is intended to be a fair and balanced assessment of an employee's performance. To assist supervisors and department heads in conducting performance reviews, the HR-Knoxville Office has introduced new Performance Review forms and procedures for use in Knoxville.

To record an overall evaluation in:

- accomplishments
- service and relationships
- dependability
- adaptability and flexibility
- and decision making or problem solving.

Effectiveness must be measured in terms of how well a service satisfies the demands placed on it by its users. An effective study might, for example, ask whether reference questions are answered to the users' satisfaction or whether a library provides wanted materials to its users when needed.

Weiss argued that most evaluation decisions relate to whether or how a library should:

(i) Continue a programme. For example, should a junior high school library continue purchasing extensively in the field of mathematics if that material is rarely used?

(ii) Institute similar programmes elsewhere. For instance, should a public library expand a practice of interfiling adult and juvenile nonfiction to all its branch libraries or just to those with no separate children's room?

(iii) Improve its practices or procedures. How can special librarians improve?

137. Zero Base Budgeting

Zero base Budgeting is the extreme opposite of line item budgeting. This type of budgeting does not take any existing cost or programme granted nor does it recognise any historical base for continuing support to previous year's budget. All the current activities are looked afresh and budget allocations are made irrespective of previous year's allocation. The ZBB though impractical involves intensive review of each and every library activity and to be realistic, requires wide statistics.

138. IT – Concept

Information Technology (IT), as defined by the Information Technology Association of America (ITAA), is "the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware." IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and securely retrieve information.

139. IT – Impact on Society

Information technology means a variety of technological applications in the process of communication of information.

The term information technology has been used as collective term for the whole spectrum of technologies providing the ways and means to acquire, store, transmit, retrieve and process information.

Impact of IT on Society

1. Health Care

Doctors at medical centres will use large archives of radiology images to identify the patterns and features associated with particular disease. With remote access to supercomputers, they will also be able to improve the accuracy of mammographies by detecting subtle changes in three-dimensional images.

2. National Security

A top priority for the Defence Department is "dominant battlefield awareness", which will give the United States military a significant advantage in any armed conflict. This requires an ability to collect information from large numbers of high resolution sensors, automatic processing of the data to support terrain and target recognition, real time distribution of that data to the war fighter. This will require orders of magnitude more bandwidth than is currently commercially available.

3. Distance Education

Universities are now experimenting with technologies such as two-way video remote sites, DVD like replay of past classes, modelling and simulation, collaborative environments, and online access to instructional software, distance education will improve the ability of universities to serve working personnel who want new skills, but who cannot attend a class at a fixed time during the week.

4. Energy Research

Scientists and engineers across the country will be able to work with each other and access remote scientific facilities, as if they were in the same building. "Collaboratories" that combine video conferencing, shared virtual workspaces, networked scientific facilities, and databases will increase the efficiency and effectiveness of our national research enterprise.

5. Biomedical Research

Researchers will be able to solve problems in large-scale DNA sequencing and gene identification that were previously impossible, opening the door to breakthroughs in curing human genetic diseases.

6. Environmental Monitoring

Researchers are constructing a "virtual world" to model the Chesapeake Bay ecosystem, which serves as a nursery area for many commercially important species.

7. Manufacturing Engineering

Virtual reality and modelling and simulation can dramatically reduce the time required to develop new products.

8. Education

IT introduced new dimensions into educational processes. Video and audio Compact Disk/ Digital Video Disk telecast through television networks are tending to shift learning process from school to home.

9. Business and Industry

Business and Industry are the first to use the techniques of management information system to process and provide access to internally generated information using IT.

10. Entertainment

Many television channels already established to serve with news, views, entertainment and other programmes of public interest, which are reaching to all corners of the world.

11. Culture

Through computerised television channel, the people directly can see alternative life stages that have not been in the past for their older generation. It has become possible by IT applications.

12. In Daily Life

An ordinary person in his daily life needs to have access to information on many of the daily activities. One may need information on the subjects concerned with his daily life. With the advent of IT, access to such information has now become very easy.

13. Politics

The new information communication technology offers many promising ways to make societies more democratic. Teleconferencing with representatives of the society, cable television channels devoted to legislative proceedings and better voter information on candidates are examples of application of IT.

14. Government

Government needs sophisticated information system for collecting, organizing and disseminating its statistical data on all its activities, for which government constitutes the most important and vital information resource for planning and later implementing. It is all have done by the use of IT.

15. Future Outlook

The speed of processing, however, already exceeds the speed of input and accessioning, so improvement in these two areas will be major

focus of research and development. Another long-range trend is the increasing compatibility of hardware and more powerful easier-to-use packaged software. Expert systems are increasingly available; these software packages make decision rules and knowledge gleaned from experts available to users through interactive dialogue with the computer. Innovation literature speaks of the two factors of market pull and technology push. Market pull is the response to demand or to perceived customer needs; and technology push is the imperative to explore and develop new areas of technology long before potential applications can be discerned.

16. New Emphasis

The striking developments in information technology in the next few years are:

(a) Digitization of all data
(b) New and more natural user interfaces
(c) Specialization, miniaturization and dispersion of information technology
(d) Multipurpose technology of broader capability and greater flexibility
(e) The networking of networks

Last but not least, Kling notes that using computer systems has both direct and indirect impacts on users. System designers and "utopian themes" concentrate primarily on the direct impacts of reducing what Wiener referred to as the inhuman use of human beings and supporting "a society of abundance which provides high quality service for all." The side effects are considerably more difficult to assess or even identify but may have an overall greater impact than the direct effects of computer use. Among the side effects Kling notes are the tendency for formerly low-level decisions to be made at higher levels, reduced interpersonal communication in the workplace, and potential unintended changes in organization structures.

140. E-mail

It is a miraculous phenomenon. Simple Mail Transfer Protocol is the secret of e-mail on the Internet. Within the Internet e-mail is delivered by having the source machine establish a TCP connection to port 25 of the

destination machine. A typical e-mail consists of three parts: i) header ii) body (content) and iii) signature (sender's name).

141. Networking – concepts

Networking is an interconnection intelligent computers and work stations by cables for resource sharing, information exchange, security for database, etc.

In general, the term network can refer to any interconnected group or system. More specifically, a network is any method of sharing information between two systems (human or mechanical). It can also mean (see wordnet.princeton.edu/perl/webwn):

An interconnected system of things or people; "he owned a network of shops"; "retirement meant dropping out of a whole network of people who had ...

(broadcasting) A communication system consisting of a group of broadcasting stations that all transmit the same programmes; "the networks compete to broadcast important sports events"

(from net) An open fabric of string or rope or wire woven together at regular intervals

A system of intersecting lines or channels; "a railroad network"; "a network of canals"

Communication with and within a group; "You have to network if you want to get a good job" .

(electronics) A system of interconnected electronic components or circuits

142. Networking – topologies

According to dictionary meaning a 'network' is "an interconnected or interlinked chain, group or system." In the information field, a 'Network' would mean a formal of group of libraries and information centres following some common pattern or design for information exchange and communication with a view to improve efficiency and effect economy in an overall manner. More specifically, Network is a system of

interlinking of automated libraries and information centres through communication channels.

Network topologies are as follows:

1. Cyclic Network:

(a) Circular Network:

(b) Chain Network:

2. Directed/Centralised and Non Directed/Decentralised Network

Library Networks:

Four common network configurations are:

1. Hierarchical structure
2. Star structure
3. Ring structure
4. Distributed structure
   (a) Fully distributed network b) Partially distributed network

143. LAN

A local-area network is a computer network covering a small geographic area, like a home, office, or group of buildings e.g. a school. The defining characteristics of LANs, in contrast to wide-area networks (WANs), include their much higher data-transfer rates, smaller geographic range, and lack of a need for leased telecommunication lines. Ethernet over unshielded twisted pair cabling, and Wi-Fi are the two most common technologies currently, but ARCNET, Token Ring and many others have been used in the past.

144. MAN

Metropolitan area networks, or MANs, are large computer networks usually spanning a city. They typically use wireless infrastructure or Optical fiber connections to link their sites.Metropolitan area networks can span up to 50 Km., devices used are modem and wire/cable.

145. WAN

Wide Area Network (WAN) is a computer network that covers a broad area (i.e., any network whose communications links cross metropolitan, regional, or national boundaries). Or, less formally, a network that uses routers and public communications links. Contrast with

personal area networks (PANs), local area networks (LANs), campus area networks (CANs), or metropolitan area networks (MANs) which are usually limited to a room, building, campus or specific metropolitan area (e.g., a city) respectively. The largest and most well-known example of a WAN is the Internet.
WANs are used to connect LANs and other types of networks together, so that users and computers in one location can communicate with users and computers in other locations. Many WANs are built for one particular organization and are private.

146. Library Automation

An integrated library system, or ILS, is an enterprise resource planning system for a library, used to track items owned, orders made, bills paid, and patrons who have borrowed.

An ILS is usually comprised of a relational database, software to act on that database, and two graphical user interfaces (one for patrons, one for staff). Most ILSes separate software functions into discrete programmes called modules, which are then integrated into a unified interface. Examples of modules include: acquisitions (ordering, receiving, and invoicing materials), cataloging (classifying and indexing materials), circulation (lending materials to patrons and receiving them back), serials (tracking magazine and newspaper holdings), and the OPAC (public interface for users). Each patron and item has a unique ID in the database that allows the ILS to track its activity.

Larger libraries use ILSes to order and acquire, receive and invoice, catalog, circulate, track and shelve materials. Smaller libraries, such as private homes or non-profit s (e.g. churches and synagogues), often forego the expense and maintenance required to run an ILS, and instead use a library computer system.

Most sizable First World libraries use an ILS. In the United Kingdom, ILSes are sometimes referred to as "library management systems".

147. Write about ERNET.

Education and Research Network is a computer network for academic and research community in India which started with leading institutions in India such as IITs, IIS, National Centre for Software Technology (NCST), and DOE (Department of Engineering). It aims at covering a number of scientific and industrial disciplines. The communication services offered by this network would include electronic mail, file transfer, remote log on, database access and bulletin board.

The project ERNET was launched in November 1986 as a result of identification of computer networking as a thrust area by the Department of Electronics (DOE) during the seventh plan (1985-90). It is aimed at setting up a computer network for academic and research community with initial participation from eight leading academic and research institution including Department of Electronics). These institutions are the Indian Institute of Technology (IITs) at Delhi, Kanpur, Kharagpur, Madras, Mumbai; Indian Institute of Science, Bangaluru, National Centre for Software Technology, Mumbai and Department of Electronics, New Delhi.

Objectives: Objectives of ERNET are to enhance national capabilities in the area of Design, Development, Research Education and Training on state of art concepts of computer networking and related emerging technologies. Immediate objectives are to set up a nationwide network for academic and research community.

Services: Its services include electronic mail, file transfer news, remote log on, database access, conferencing and directory services. Multivendor computing environment is supported with an inter-networking architecture with a variety of underlying sub-networks via, computer LANs, WANs and Packet radio based Metropolitan Area Network (MAN). ERNET proposes a massive training programme to generate critical manpower needed by industry and users in this field.

148. Write about NICNET.

National Informatics Centre Network was piloted by the National Informatics Centre, Planning Commission, Government of India, with a view to provide computing and communication infrastructure to aid planning and monitoring the schemes and decision making activities. Now it's headquarter is New Delhi and regional centres at Pune, Hyderabad and

Bhubaneswar. The state/union territory capitals have been connected with compatible computer systems of respective district headquarters. The network would facilities flow of information among the four national/regional nodes, 32 state/union territory nodes and 439 district nodes. At present, one satellite channel links the master and micro earth stations installed in all state and district centres. However, this network is being evolved solely as a management information systems to meet the needs of users in Government departments and agencies.

149. Write about DELNET.

DELNET (Delhi Library Network presently Developing Library Network) was registered as a Society in June 1992 with its Office at the India International Centre, New Delhi. Financial support for the network was offered by National Information System for Science and Technology (NISSAT), Department of Scientific and Industrial Research, Government of India.

Aims and Objectives are as follows:

1. To promote sharing of resources among the libraries in Delhi by developing a network of libraries, by collecting, storing and disseminating information and by offering computerised services to the users;
2. To undertake scientific research in the area of information science and technology, create new systems in the field apply the results of research and publish them;
3. To offer technical guidance to the member libraries on collecting, storing, sharing and disseminating information;
4. To coordinate efforts for suitable collection development and reduce unnecessary duplication wherever possible;
5. To establish/facilitate the establishment of referral and/or research centres, and maintain a central online union catalogue of books, serials and non-book materials of all the participating libraries;
6. To facilitate and promote delivery of documents manually and mechanically;
7. To develop databases of projects, specialists and institutions;

8. To posses and maintain electronic and mechanical equipments for speedy communication of informational and delivery of electronic mail; and
9. To coordinate with other regional, national and international networks and libraries for exchange of information and documents.

Members

One Hundred and Thirty Three libraries
108 members (29 outside Delhi, 2 US)
25 Associate Institutional Members (2 outside Delhi)
Admission Fee: Rs. 5,000.00
Institutional Membership: Rs. 7500.00 per year (10000 or more collection)
Associate Institutional Membership: Rs. 10,000.00 per year (less than 10,000 books)

Services

1. Internet: provides E-mail facility and full Internet (TCP/IP) connectivity
2. Online Databases

a) Union Catalogue of Books: CCF (5,61,235 records)
b) Union Catalogue of Books: MARC Format (20,000 records)
c) Union List of Current Periodicals (16,497 records from 150 Delhi libraries)
d) Union Catalogue of Periodicals (10,599 records)
e) Database of Periodical Articles
1,49,469 articles can be searched under the title, author, periodical and subject
Photocopies of the articles are provided to the number libraries on payment
f) Indian specialists Database
2,000 records of eminent scientists, educationists and writers
Details like name, contact, qualifications, specialization, etc.
g) CD-ROM Database: bibliographic database of CD-ROMs available with members.
h) Union List of Video Recordings (about 1,834 listings)
i) Union List of Sound Recordings (500 audio cassettes available in member libraries)
j) Union List of Newspaper (65 records)

k) Union List of Serials of Management Libraries (800 serials) for rationalizing their subscription
l) Union Catalogue of Hindi Books (3000 records in Hindi; retrieved through the GIST compatible system)
m) Urdu Manuscripts Database (210 manuscripts)
n) Database of Theses and Dissertations (251 records)
o) DEVINSA database (20,000 records on socio-economic issues in the South Asia)
p) Books-in-Print Database (new titles from Indian publishers)

3. DEL-LISTDSERV
4. ILL online
5. Retro-Conversion
   Offers retro conversion facilities to the libraries through specialized agencies. Facilities the use of modern tools such as CD-ROMs and online facilities
6. Referral Services
7. Creation and Maintenance of Bibliographic databases
8. Training Programmes
9. Lectures and Workshops
   Organizes lectures by networking specialists
   Conducts national workshops, seminars and meets on library networking from time to time
9. Publications
   DELNET Newsletter
   NACLIN Proceedings (from 1998)
10. Products
    DELNET System for Information Services (DELSIS)
    Library networking software
    Developed on a RDBMS BASISplus provided by NIC
    Supports the cataloguing of books in Indian languages
    DEL-DOS: on DOS platform, for creating MARC records of books, possible to import/export to and from ISO 2709
    DEL-Windows: Option for creating the bibliographic records either using CCF or MARC Format
    Modules: (a) database Creation and Maintenance (b) Online Public Access catalogue (OPAC)

150. Explain the meaning of Browsing.

Browse: reading superficially or at random

Browse: the act of feeding by continual nibbling

Browsing is defined as “to inspect something in a leisurely and casual way”. Yet strangely a new definition has arisen lately from the demand of technology, “to look for information in the Internet.”

Browsing, in the information world, is widely recognized as an important information seeking technique. In an academic context, scholars have argued that frequent browsing is often the only way to locate information and resources that cannot be readily described by index terms. Further, some kinds of information are recognized as relevant only upon discovery. In short, there are the things you know you do not know and the things you do not know you do not know. Browsing provides an alternative strategy for locating information of the first kind and may provide one of the crucial ways for information of the second kind to be encountered.

Information seeking is, after all, about finding out things that one does not know before the search begins. Therefore, uncertainty always accompanies the process to a greater or lesser degree. Sometimes it is possible to specify the information need very closely — "What was the population of Turkey in 1960?"— but other times specification in advance is impossible, as when the ugly duckling was surprised to discover serendipitously that he was actually a swan.

Much has been written about browsing in the library and information science literature, but it has generally been found difficult to specify browsing too closely, because 1) the conditions under which browsing is used vary widely, 2) it seems to be rather unpredictable in its very nature and 3) it seems to be employed in both more and less directed, intentional ways. Herner (1970) derived three… categories: 1) directed browsing, 2) semi-directed or predictive browsing and 3) undirected browsing".

Four dimensions have been most prominent of browsing:

1. "The act of scanning. Browsing embodies an act of scanning, which has been variously described as looking, examining, or sampling where the person's body or eyes move smoothly at will".

2. "Presence or absence of a purpose.... Although a purposeful act can be goal-directed or non-goal-directed, the presence of an intention suggests that the concept of browsing cannot be adequately described by behavioural characteristics alone".
3. Search criteria may be extensively, minimally, or not at all specified. "At one end of this continuum, the objective of browsing is well defined; at the other end, the objective of browsing is not defined".
4. The browser's knowledge of the resource browsed— either search paths in or contents of - can affect the quality of the interaction with the resource substantially.

151. Define Web browser.

A web browser is a software application which enables a user to display and interact with text, images, videos, music and other information typically located on a Web page at a website on the World Wide Web or a local area network. Text and images on a Web page can contain hyperlinks to other Web pages at the same or different website. Web browsers allow a user too quickly and easily access information provided on many Web pages at many websites by traversing these links. Web browsers format HTML information for display, so the appearance of a Web page may differ between browsers.

Some of the Web browsers currently available for personal computers include Internet Explorer, Mozilla Firefox, Safari, Opera, Flock and AOL Explorer. Web browsers are the most commonly used type of HTTP user agent. Although browsers are typically used to access the World Wide Web, they can also be used to access information provided by Web servers in private networks or content in file systems.

152. Write about types of research.

Research may be defined as the systematic and objective analysis and recording of controlled observations that may lead to the development of generalisations, principles, or theories, resulting in prediction and possibly ultimate control of events.
We may recognize the following three types of research:

(i) Fundamental or Basic research (ii) Applied research (iii) Action research.

Fundamental or Basic research: Research methodologies are described in its more formal aspects. Research has drawn its pattern and spirit from the physical sciences and has represented a rigorous, structured type of analysis. The goal of research is presented as the development of theories by the discovery of broad generalisations or principles and employed careful sampling procedures in order to extend the findings beyond the group or situation studied. Fundamental research in the behavioural sciences may be concerned with the development and testing of theories of behaviour. Educational research is concerned with the development and testing of theories of how students behave in an educational setting.

Applied research: It has most of the characteristics of fundamental research, including the use of sampling techniques and the subsequent inferences about the target population. However, its purpose is improving a product or a process – testing theoretical concepts in actual problem situations. Most educational research is applied research, for it attempts to develop generalisations about teaching-learning processes and instructional materials.

Action research: It is focused on immediate application, not on the development of theory or on general application. It has placed its emphasis on a problem here and now in a local setting. Its findings are to be evaluated in terms of local applicability, not universal validity. Its purpose is to improve school practices and, at the same time, to improve those who try to improve the practices: to combine the research processes, habits of thinking, ability to work harmoniously with others, and professional spirit.

153. What do you understand by Research Design?

According to B.N.Ghosh, a research design is "a plan of the proposed research work". It provides guidelines to help a researcher to keep along right direction. When these guidelines are applied, one can deviate from these, keeping in view the new insights gained by him". A research design should be prepared after the topic and problem of research have been selected and formulated, objectives have been properly outlined, concepts involved have been properly defined and the hypothesis or hypotheses have been properly formulated.

154. Report Writing

A research work can take in the form of a research report (published or unpublished). It may be in the form of a separate document or appear as a journal article. A good research report should satisfy the four conditions – objectivity, reliability, validity and generalisability of the findings. Objectivity pertains to the method of collection of data and scoring of the responses. Reliability means there should be consistency in measurement. A measuring instrument is considered to be valid when it measures what it is supposed to measure. Besides, a research report should enable a researcher to use data collected from a sample to draw certain generalisations, applicable to a larger group from which sample had been selected.

155. FRBR

From 1992-1995 the IFLA Study Group on Functional Requirements for Bibliographic Records (FRBR) developed an entity relationship model as a generalized view of the bibliographic universe, intended to be independent of any cataloging code (e.g. AACR2, the German RAK [*Regeln fur die alphabetische Katalogisierung*] and RICA [*Regole Italiane di Catalogazione per Autore*] or implementation.

The FRBR report itself includes a description of the conceptual model (the entities, relationships, and attributes or metadata as we'd call them today), a proposed national level bibliographic record for all types of materials, and user tasks associated with the bibliographic resources described in catalogues, bibliographies, and other bibliographic tools.

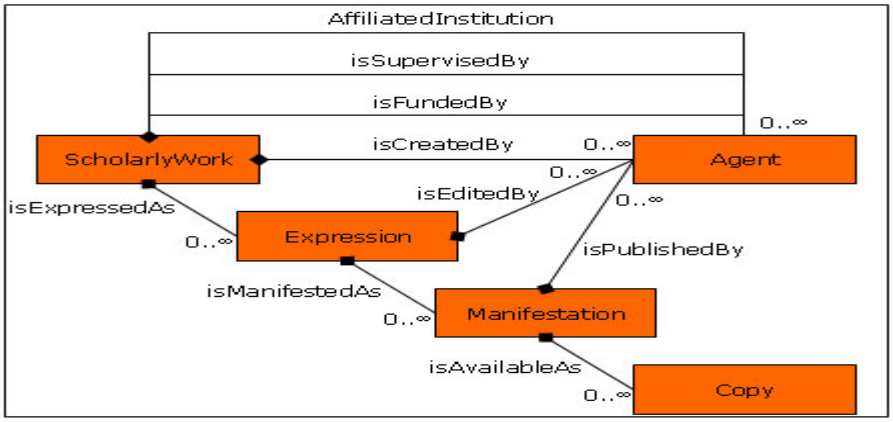
IFLA continues to monitor the application of FRBR and promotes its use and evolution.

The IFLA Cataloguing Section's Working Group on FRBR, chaired by Patrick LeBoeuf,

FRBR offers us a fresh perspective on the structure and relationships of bibliographic and authority records, and also a more precise vocabulary to help future cataloguing rule makers and system designers in meeting user needs. Before FRBR our cataloguing rules tended to be very unclear about using the words "work," "edition," or "item." Even in everyday language, we tend to say a "book" when we may actually mean several things.

For example, when we say "book" to describe a physical object that has paper pages and a binding and can sometimes be used to prop open a door or hold up a table leg, FRBR calls this an "item."

When we say "book" we also may mean a "publication" as when we go to a bookstore to purchase a book. We may know its ISBN but the particular copy does not matter as long as it's in good condition and not missing pages. FRBR calls this a "manifestation." When we say "book" as in 'who translated that book,' we may have a particular text in mind and a



specific language. FRBR calls this an "expression." When we say "book" as in 'who wrote that book,' we could mean a higher level of abstraction, the conceptual content that underlies all of the linguistic versions, the story being told in the book, the ideas in a person's head for the book. FRBR calls this a "work."

Fig1:FRBR and DC Application Model

DC	**FRBR**
ScholarlyWork	Work
Copy	Item
Agent	Corporate Body
isExpressedAs relationship	'is realized through'
isManifestedAs relationship	'is embodied in'
isAvailableAs relationship	'is exemplified by'
isCreatedBy relationship	'is created by'
isPublishedBy relationship	'publisher' attribute of

Table 1: DC and FRBR Comparison

156. What is Indicative Abstract?

An abstract may be either "indicative" or "Informative" or "Indicative-cum-Informative". While it is an indicative abstract it answers the question "What the essential contents of the micro document are all about?" Normally, in the case of review document, a predominantly indicative abstract is quite acceptable; and the practice of abstracting the contents of such a document is more or less in the same line. Besides this kind of document, in other cases where the practice of indicative abstracting is adopted, normally it is done on the basis of predetermined policy.

157. What is Informative Abstract?

While it is an informative abstract it answers the question "What are its essential contents?" Normally an informative abstract is not absolutely informative in all cases. Some of the sentences which are used to prepare an informative abstract may be sentences which may appear to be largely indicative. But such sentences are supplemented by sentence(s) which would definitely appear to be informative especially, in all cases of informative abstract. Besides, there may another strategy where the essential portions of the micro document, such as, the specification of the study, the Methodology used, the Results obtained and the Conclusion drawn, may not warrant to be presented in brief informative form. Some portions may be presented indicatively without violating any essential requirement. For this reason, an informative abstract in reality is indicative-cum-informative abstract.

158. What is Indicative-cum-Informative Abstract?

While it is an indicative-cum-informative abstract, certain portions of the abstract are indicative, and certain portions of the abstract are informative.

159. What is Discursive Information?

"Discursive information" is the message conveyed by a systematized body of concepts ranging over a wide field and proceeding

logically or coherently from topic to topic and reasoning from premises to conclusion; or proceeding from particulars to generalization utilizing or based upon analytical reasoning; or from logical abstraction to logical abstraction to logical interpretation. Discursive information is normally expressed in terms of more than one sentence in a natural language and provides the answer to the question "What is the information?" regarding any body of information.

160. What is Non-Discursive information?

"Non-discursive information" is the message conveyed by the systematized body of concepts taking the shape of a unit fact or atomic fact. In the context of the question, "What is the information about?", the answer may be expressed by a systematized body of concepts in the form of indicative formulation of the summary of the message or its accepted or acceptable substitutes. The language of indicating what a body of information is about, need not necessarily be in terms of more than one sentences of a natural language. Indicative formulation in terms of phrases are readily acceptable within the framework of any natural language; and the grammar of natural language is not rigidly observed here. The language of indicative formulation is predominantly an artificial language using the words or phrases belonging to the vocabulary of a natural language.

161. What is Information Analysis?

"Information Analysis" refers to a process of identifying those attributes of a message which have greatest likelihood of leading to an accurate inference of the intension of the message source – such as, document texts, databases and information requests. The notion may manifest in a few predominant levels or forms depending upon the ultimate purpose for which the operation is applied.

162. What is Subject Indexing Language?

A Subject Indexing Language is an artificial language developed on the basis of the intrinsic semantic structures, and artificially postulated elementary, and syntactic structures of subject propositions. It is used to

transform the structures of subject-propositions in a natural language for ready recognition of groups of subjects – both organizing and associative – on the basis of their transformed structures, with the ultimate idea of expeditious retrieval of information on those subjects whenever the need arises.

163. What is Subject?

A 'Subject' is essentially a piece of non-discursive information or a unit fact; and it is conveyed by an indicative formulation that summarizes in its message what a particular body of information is about.

164. What is Indexing?

A record specifying an existent along with its address is an 'Entry'. A set of methodology arranged entries is an "Index". The process of preparing an index is "Indexing". The methodological arrangement forming the essential element of an index is intended to generate "Groups" – specially, groups of what they refer to. In this sense, indexing is a process of grouping. The purpose of "Classification", as a process, is to recognize or to generate "Groups". In this sense, classification also is a process of grouping. Teleologically, therefore, indexing is a process of classification. A deep analysis of the results of classification reveals that classification may be either (1) "Organizing Classification"; or (2) "associative Classification". In organizing classification the classes are grouped on the basis of Coordinate, Superordinate, Subordinate and Collateral – that is, COSSCO relationship. The result of organizing classification is always a hierarchy. A hierarchy may consist of either "Whole" and "Types" – that is, Genus and Species; or it may consist of "Whole" and "Parts". In associative classification, a group is recognized because of the association of each of its members to a common factor. In this sort of classification, COSSCO relationships are not readily ascertainable, or they are deliberately ignored.

An index refers or indicates to the location of an object or idea.

In other words, " a systematic guide to (i) items contained in or (ii) concepts derived from a location.

Therefore, Index is a conveniently arranged list of items or concepts, indexing is the art of preparing an index.

In short, indexing is systematic organization of information for their easy and quick retrieval.

165. What are essential ingredients of Language?

The essential ingredients of a language – natural or artificial – are (1) elementary constituents; and (2) rules for admissible expression.

166. What are the Characteristic Features of a Subject Indexing Language (SIL)?

A SIL consists of elementary constituents, and rules for the formulation of admissible subject-propositions. It is used to summarize in indicative formulations what the contents of a source of information are about. The purpose of these summarizing indicative formulations is to create groups of sources of information to facilitate expeditious retrieval of information about them by providing necessary and sufficient access points. By implication, therefore, a SIL is a classificatory device; and in that sense, a classificatory language. The classification forming the basis may be either organizing, or associative, or a combination of both. To serve the whole purpose of exhaustive retrieval, an organizing classification must be complemented by an associative classification, or vice versa. An organizing classification can serve as the source for deriving associative classifications.

167. Discuss the Structures of Subject Propositions.

For the purpose of designing a SIL it is necessary to recognize the following types of structure of a subject-proposition:

(1) <u>Semantic Structure</u>

Semantic structure of a subject-proposition essentially refers to its species, parts and their interrelationships. The name of a subject comprehends all its divisions and subdivisions. In other words, the name of a subject summarizes indicatively all its parts. What a name of a subject stands for, can be recognized on the basis of its denotation. The structure of a subject recognized on the basis of its denotation or comprehension is its "semantic structure". For example, Mathematics as a subject

comprehends Arithmetic, Algebra, Analysis, Geometry, Topology, etc. Similarly Agriculture as a subject comprehends Field crops, Rice, Manuring of Rice, Harvesting of Rice, etc. This structure is based on "Genus-Species", "Whole-Parts", and "Interfacet" relationship and is intrinsic to subject propositions.

(2) Elementary Structure

The different substantive constituents component elements) of a subject-proposition may belong to different elementary categories depending on the semantic significance of the substantives. The structure recognized on the basis of elementary categories to which the different substantives belong is the "Elementary structure". This structure is artificially postulated. For example, according to Kaiser's "Systematic Indexing", the components of any subject-proposition are postulated to belong to "Concrete", "Place" and "Process". The categorization of components in a SIL serves a function quite similar to that performed by parts-of-speech or grammatical categorization of words in a natural language. Words in a natural language, such as, noun, verb, adverb, etc. The syntax of English grammar may then be defined with respect to these categories. In an analogous manner the syntax of expressions in a SIL may be defined with respect to the elementary categories.

(3) Syntactic Structure

The elementary constituents of a subject-proposition have relationships among them. The relationship is indicated by auxiliary words or function words, the order (sequence, syntax) of the different elementary constituents are given as rules of syntax, with reference to the Elementary Categories. The structure of the subject proposition due to these rules of syntax gives rise to "Syntactic Structure". This is the structure in the dimension of the horizontal sequence of the elementary constituents of subject propositions meant to generate the intended pattern of grouping in their vertical sequence.

Besides, a SIL, for the sake of its own purpose, has to take care of synonymic, quasi-synonymic, and antonymic relations of the manifestations of different elementary categories.

163. What is Qualitative Information?

"Qualitative information" is conveyed by the statements specifying some unit or atomic facts relating to some non-quantifiable attribute of an existent. For example, the information conveyed by the statement: "My area of research interest is "Community Information Services", or its substitute just "Community Information Services", in response to the question "What is your area of research interest?" is a piece of qualitative (non-discursive) information.

164. What is Quantitative Information?

"Quantitative information" is conveyed by the statements specifying some unit or atomic facts relating to some quantifiable attribute of an existent. For example, the information conveyed by the statement: "I have one child" or its substitute just "1 child"; in response to the question "How many children do you have?" is a piece of quantitative (non-discursive) information. Data, in the sense of facts and figures, constitute the variety designated as non-discursive information; and, as a generic term, comprehends both qualitative and quantitative non-discursive information.

165. What is Semantic Web?

The Semantic Web is a mesh of information linked up in such a way as to be easily processable by machines, on a global scale. One can think of it as being an efficient way of representing data on the WWW, or as a globally linked database. The Semantic Web was thought up by Tim Berners-Lee, inventor of the WWW, Unified Resource Identifier, HTTP, and HTML. There is a dedicated team of people at the W3C (World Wide Web Consortium) working to improve, extend and standardize the system, and many languages, publications, tools and so on have already been developed. However, Semantic Web technologies are still very much in their infancies, and although the future of the project in general appears to be bright, there seems to be little consensus about the likely direction and characteristics of the early Semantic Web. Semantic Web is the abstract representation of data on the WWW, based on the RDF (Resource Description Framework) standards and other standards to be defined. This is being developed by the W3C, with participations from academic researchers and industrials partners. Data can be defined and linked in

such a way so that there is more effective discovery, automation, integration, and reuse across different applications. The Semantic Web is an evolving extension of the WWW in which the semantics of information and services on the web is defined, making it possible for the web to understand and satisfy the requests of people and machines to use the web content. It derives from WWW director Sir Tim Berners-Lee's vision of the Web as a universal medium for data, information, knowledge and wisdom exchange. The Semantic Web is the extension of the World Wide Web that enables people to share content beyond the boundaries of applications and websites. It has been described in rather different ways: as a utopic vision, as a web of data, or merely as a natural paradigm shift in our daily use of the Web. Most of all the Semantic Web has inspired and engaged many people to create innovative semantic technologies and applications. Semanticweb.org is the common platform for this community. The Semantic Web is a Web is a Web with a meaning if HTML and the Web made all the online documents look like one huge book, RDF, schema, and inference languages will make all the data in the world look like one huge database.

Semantic Web is a term coined by World Wide Web Consortium (W3C) Director Timothy John Berners-Lee. It describes methods and technologies to allow machines to understand the meaning – or "semantics" – of information on the World Wide Web. The Semantic Web is the extension of the World Wide Web that enables people to share content beyond the boundaries of applications and websites.

166. What is Content Management?

In simple terms, content management can be defined as a process of creating, collecting, organizing, categorizing and structuring information resources of any type of format so that they can be saved, retrieved, published, updated and re-purposed in any way desirable. A Content management System (CMS) is a computer application that enables users to manage content in an orderly fashion. Content is in essence, any type or 'unit' of digital information. It can include a variety of file types such as text, images, graphics, video, sound, documents, records etc. Or anything that is likely to be managed in an electronic format which a CMS helps to create, edit, store and publish. The benefit of using a CMS, especially for website creation, is that it does not require an extensive knowledge of

coding. The CMS provides a bridge between the seasoned coder and the weekend blogger; in the sense that, both can maintain the site to their desired control, even though both have different levels of technical knowledge. After the arrival of Web 2.0 technologies, many tools are there in the scene, which are more flexible and easier than the traditional tools. The new technologies include Content Management Systems (CMS), Blogs, Wikis, and RSS etc. There are many content management software used like Joomla, Drupal, Bitweaver, Mambo, Pligg, Plone, Post Nuke, Tweak, Zope etc.

167. What is Digital Rights Management?

In 2003, Digital Rights Management (DRM) concept gave birth. American Library Association states that 'DRM' is a term used for technologies that control how digital content is used. It is commonly used term in a number of professional areas such as, libraries and archives, publishing, media creation and production, information technology etc. Rights provide the legal and moral context for providing managed access to copyright protected resources in ways that protect the creator's exploitation of his/her work and the privacy of the resource user. A critical issue for effecting DRM, particularly in a digital environment where resources can be readily duplicated and altered, is to identify and support the authentic resource. Affective DRM involves establishing a framework of policy and practice that supports the rights of the creator, the user and the resource.

168. What are the Characteristics of Research?

1. Research is directed toward the solution of a problem;
2. Research emphasizes the development of generalizations, principles, or theories that will be helpful in predicting future occurrences;
3. Research is based upon observable experience or empirical evidence.
4. Research demands accurate observation and description;
5. Research involves gathering new data from primary or firsthand sources or using existing data for a new purpose;

6. Research is more often characterized by carefully designed procedures that apply rigorous analysis;
7. Research requires expertise;
8. Research strives to be objective and logical, applying every possible test to validate the procedures employed, the data collected, and the conclusions reached;
9. Research involves the quest for answers to unsolved problems;
10. Research is characterized by patient and unhurried activity;
11. Research is carefully recorded and reported;
12. Research sometimes requires courage.

169. Advantage of Freely Faceted Classification Scheme.

It has been found that a freely faceted classification, based on explicitly stated postulates and guiding principles, is the most suitable scheme for adaptation in the design and development of depth schedules for the co-extensive classification of micro-subjects.

The design of the structure of freely faceted classification would sustain for a longer period. However, additional foci would have to be added and some of the existing foci revised from time to time. At times a new schedule of isolate facets would have to be added for a new compound subject. This is thus a continuing work, which would have to be carried out by a classificationist or classifier-cum-classificationist, guided by explicitly stated laws, canons and principles.

A free faceted scheme possesses, thus, greater resilience than other species of classification for subjects. Between the two schemes giving a more or less similar structure to the class number for the same specific subject, the freely faceted scheme would be in a position to give a smaller class number.

170. Define Subject-Proposition.

A statement or any other formulation in a language – natural or artificial – denoting a subject, is a subject-proposition.

Example: Treatment of infectious disease of lungs.

171. What do you mean by Elementary category?

A specific idea used to formulate a subject-proposition belongs to one and only one of the following Elementary Categories:

(a) Discipline = D (b) Entity = E (c) Action = A (d) Property = P

172. What is WIPO?

The World Intellectual Property (WIPO) is one of the 16 specialized agencies of the United Nations. WIPO was formally created by the Convention Establishing the World Intellectual Property , which entered into force on April 26, 1970. Under Article 3 of this Convention, WIPO seeks to "promote the protection of intellectual property throughout the world." WIPO became a specialized agency of the UN in 1974, as above-mentioned.

WIPO currently has 184 member states, administers 24 international treaties, and is headquartered in Geneva, Switzerland. The current Director-General of WIPO is Francis Gurry, who took office on October 1, 2008. Almost all UN Members as well as the Holy See are Members of WIPO (non-members are the states of Kiribati, Marshall Islands, Micronesia, Nauru, Palau, Solomon Islands, Timor-Leste, Tuvalu and Vanuatu, as well as the entities of Palestinian Authority, Sahrawi Republic, and Taiwan).

Unlike other branches of the United Nations, WIPO has significant financial resources independent of the contributions from its Member States. In 2006, over 90% of its income of just over CHF 250 million was expected to be generated from the collection of fees by the *International Bureau* (IB) under the intellectual property application and registration systems which it administers (the Patent Cooperation Treaty, the Madrid system for trademarks and the Hague system for industrial designs).

WIPO has established WIPOnet, a global information network. The project seeks to link over 300 intellectual property offices (IP offices) in all WIPO Member States. In addition to providing a means of secure communication among all connected parties, WIPOnet is the foundation for WIPO's intellectual property services.[9]

173. What is 'Right to Information Act'? What are its ingredients?

Under the Act, every bonafide person requiring information regarding Government activities may demand such information in accordance with the procedure specified. This Act was passed on 15th June 2005 and come into force on the 12th October 2005. The Act extends to the whole of India except the State of Jammu and Kashmir (Sec 12). RTI includes the right to (i) inspect works, documents, records, (ii) take notes, extracts or certified copies of documents or records, (iii) take certified samples of material, and (iv) obtain information in form of printouts, diskettes, floppies, tapes, video cassettes or in any other electronic mode or through printouts. [Sec 2(i)]

Information means any material in any form including records, documents, memos, e-mails, opinions, advices, press releases, circulars, orders, logbooks, contracts, reports, papers, samples, models, data material held in any electronic form and information relating to any private body which can be accessed by a public authority under any other law for the time being in force but does not include 'file notings'. [Sec 2(i)]

(1) Apply personally to get information;
(2) Information will be given by Public Information Officer or it's Assistant;
(3) If this act is effective under the section 5(1), then the Public Authority will announce the name of Public Information Officer upto district level and he/she will be responsible to supply the required information;
(4) Assistant Public Information Officer, the Sub-division level Information Officer will send the application to Public Information Officer within five days after receiving the application from public to get information regarding a specific query.

174. Mention the publication of IASLIC.

The publications of IASLIC are: (1) IASLIC Bulletin (2) IASLIC Newsletter (3) National Conference Volumes (4) Information Retrieval System (G.G.Choudhury) (5) Indexing Systems: concepts, models and techniques (T.N.Rajan, ed., 1980) (6) Indian Library Science Abstract.

175. What are the standards devised for exchange of Electronic Information?

The standards are: (i) Resource Description and Access (RDA) (ii) NISO (iii) Z39.84 (iv) Z39.88 (v) MARC 21 (vi) ANSI.

176. What are the key parameters for evaluation of Web Resources?

Key parameters are (1) Accuracy (2) Authority (3) Accessibility (4) Arrangement (5) Currency (6) Coverage (7) Completeness (8) Objectivity (9) Response time (10) Stability (11) Style (12) Target Audience

177. What is 'Digit'?

A symbol representing an integer in a numbering system, as 0-9 in decimal notation or 0-F in hexadecimal.

178. What is RDA? What are the basic reasons for initiation of RDA?

Resource Description and Access (RDA) is the new standard which will be the successor to AACR2. RDA will provide: (a) a flexible framework for describing all resources – analog and digital (b) Data that is readily adaptable to new and emerging database structures (c) data that is compatible with existing records in online library catalogues.

Kiorgaard & Kartus, Coyle & Hillman have identified the following factors for adopting RDA.

1. Changes in information resources
2. Changes in catalog technology and scope
3. Changes in the Information Environment
4. Changes in users, user activities and library collections

179. What is the application of XML?

XML (Extensible Markup Language) is a set of rules for encoding documents electronically. It is defined in the XML 1.0 Specification produced by the W3C and several other related specifications; all are fee-free open standards.

XML's design goals emphasize simplicity, generality, and usability over the Internet. It is a textual data format, with strong support via

Unicode for the languages of the world. Although XML's design focuses on documents, it is widely used for the representation of arbitrary data structures, for example in web services.

There are a variety of programmeming interfaces which software developers may use to access XML data, and several schema systems designed to aid in the definition of XML-based languages.

As of 2009, hundreds of XML-based languages have been developed, including RSS, Atom, SOAP, and XHTML. XML has become the default file format for most office-productivity tools, including Microsoft Office, OpenOffice.org and NeoOffice, AbiWord, and Apple's iWork.

180. Differences between DOI and URL?

Sl. No.	**DOI (Digital Object Identifier)**	**Sl. No.**	**URL (Uniform Resource Locator)**
1	Technology for dynamic reference linking of e-resources discovered in 2000.	1.	Technology for dynamic reference linking (non-authenticated versions of the material) of e-resources discovered in 1990s.
2	DOI is an unique identifiers tagged to the specific article's metadata.	2.	This is typically been used for the article citation, it can also used to link many web accessible items.
3.	The DOI of an Internet resource is permanent.	3.	URL can be changed.
4.	The DOI is governed by International DOI Foundation and managed by Cross Ref Organization which operates a citation linking system requiring providers to deposit DOIs and associated citation metadata.	4.	Link resolving software from Ex-Libris (SFX), Endeavor (LinkFinder) and others being widely adopted by providers to take advantage. It needs to give more emphasis on International governing bodies.

5.	Implementation of the DOI ensures permanent inter publisher links.	5.	This is also widely used to provide context sensitive in a cross publisher setting, as well as from libraries to content providers. In addition to linking users with the appropriate bibliographic services to full text resource, document delivery and library holding.
6.	The Cross Ref System uses DOI.	6.	URL uses link resolver to retrieve resource.
7.	The syntax for DOI was standardized by the National Information Standards Organization as ANSI standard Z39.84.	7.	It was standardized by the National Information Standards Organization as ANSI standard Z39.88.

181. What is 'Sampling Error'?

If the method of sampling be used in an unplanned way and executed carelessly then the inference or results will be inaccurate and misleading. This is called sampling error.

182. Differentiate between 'Digital Library' and "Virtual Library".

Sl. No.	Digital Library	Sl. No.	Virtual Library
1	It is available through Internet but it is an institutional repository so it is limited to institutional information collection.	1.	It is available locally from hard disk and others through Internet but it is not an institutional repository and not limited to institutional information collection.
2.	Through digital library software (e.g. DSpace, GSDL etc.); text, image, audio, video i.e., multimedia information	2.	Through virtual reality technology, all types electronic information available through Internet.

	can be stored.		
3	Corresponding to physical collection of a particular library.	3.	There is no corresponding physical collection.
4	Storage of documents may be in one location or distributed location of a particular Digital Library Repository.	4.	Storage of documents are not in any one location.
5	According to availability documents are retrieved and delivered.	5.	According to needs documents are retrieved and delivered.
6	Only institutional text/multimedia repositories are available through Internet.	6.	Reference services, Distance learning, Services of the staff, User instruction, Current Awareness Service, Selective Dissemination of Information, Inter Library Loan, Document Delivery Service, Information marketing and Internet services are available through virtual library.
7	It consists of full text articles and multimedia.		It does not consist of full text articles and multimedia.
8	E.g. INFLIBNET Digital Library Consortium and can access through www.inflibnet.ac.in	8	INFOMINE: Scholarly Internet Resources Collections. (University of California) is a prominent, growing virtual library and can access through http://infomine.Ucr.edu/

Digital library and Virtual library can be differentiate in the following way also:

Parameters	**Digital Library**	**Virtual Library**
Contents	Local contents – digital form	Global contents – digital form
Access vs. Ownership	Ownership	Access
Hierarchy	Local resources – Global access	Global resources – Local users

Organizational structure	Extension of/Based on traditional library system	A kind of harvested digital libraries
Standards	Emphasis on information organization standards like MARC, DCMES, ETD-MS	Emphasis on interoperability standards like Z39.50, OA-PMH, SRU/SRW
Users	Primarily meant for a defined user group	No defined group of users
Coverage	Generally multidisciplinary	Generally domain specific
Location staff	Physical Building – Physical Librarian	Located in cybespace and managed by software

183. What is Information Consolidation and Repackaging? Or, Discuss the importance of information analysis in the area of information repackaging.

An information analysis and consolidation (IA+C) product is a new type of secondary information product more specifically it is reprocessing, rearranging and repackaging of information from a selection of information sources. Consolidated information is public knowledge specially selected, analysed, evaluated, and possibly restructured and repackaged for the purpose of serving some of the immediate decisions, problems, and information needs of a defined clientele or social group, who otherwise may not be able to effectively and efficiently access and use this knowledge as available in the great amounts of documents or in its original form. The criteria for selection, evaluation, restructuring, and repackaging of this knowledge of this knowledge are derived from the potential clientele. Types of IA+C products are (i) State-of-the-art report/reviews (ii) Research-in-progress (iii) Manuals (iv) Guide books (v) Hand books (vi) Directories (vii) News summary (viii) Country profiles (ix) Product/Process profiles (x) Feasibility reports non-critical factual trend reports.

Repackaging of information simply means transforming information into a more understandable, readable and acceptable presentation and putting it into more usable forms.

184. Distinguish between a Dictionary and a Glossary.

A dictionary contains the words of a language or the terms of a subject, profession or vocation arranged according to some definite order usually alphabetical one giving their meaning, pronunciation, spelling, syllabication, use, etc.

A glossary contains a list of terms along with some explanation in a specific field (i.e. subject).

185. Explain the concept of 'Information Repackaging'.

Repackaging of information simply means transforming information into a more understandable, readable and acceptable presentation and putting it into more usable forms.

186. State the significance of 'Decision-Making Process'.

Decision making is a conscious choosing, and it is a much slower process than one would like to imagine. The stereotype of finger-snapping and button-pushing fades with systematic research and analysis. The decision making process involves a blend of thinking, deciding, and acting; information is key to the process. Deliberation, evaluation, and thought must be brought into play. While many decisions are mundane, others are of unmeasured consequence and could change library's course of action.

187. Elucidate meaning and benefits of 'Video/Tele Conferencing'?

A teleconference or teleseminar is the live exchange and mass articulation of information among several persons and machines remote from one another but linked by a telecommunications system. Terms as audio conferencing, telephone conferencing and phone conferencing are also sometimes used to refer to teleconferencing.

The telecommunications system may support the teleconference by providing one or more of the following audio, video, and/or data services by one or more means, such as telephone, computer, telegraph, teletype, radio, and television.

Internet teleconferencing includes Internet telephone conferencing, videoconferencing, and Augmented Reality conferencing.

Internet telephony involves conducting a teleconference over the Internet or a Wide Area Network. One key technology in this area is Voice over Internet Protocol (VOIP). Popular software for personal use includes Skype, Google Talk, Windows Live Messenger and Yahoo Messenger.

A working example of a Augmented Reality conferencing was demonstrated at the Salone di Mobile in Milano by AR+RFID Lab. TELEPORT is another AR teleconferencing tool.

The major benefits of videoconferencing are:

i. It helps the participants feel connected and enhances understanding to each other;
ii. This kind of visual connection helps to build relationships in a way that e-mail, talk or online chat systems cannot;
iii. Travelling and lodging expenses can be substantially reduced;
iv. It provides effective communication with colleagues at remote sites by using audio, video, text, graphics and images;
v. It allows collaborative on-line document/file working;
vi. It enhances communication between different sections or departments within an organization;
vii. It provides an exciting new way to learn and interact;
viii. It can reach a much wider audience; and
ix. It can strengthen teamwork and spirit

188. State the importance of Style Manual.

A style guide or style manual is a set of standards for design and writing of documents, either for general use or for a specific publication or organization. Style guides are prevalent for general and specialized use, for the general reading and writing audience, and for students and scholars of the various academic disciplines, medicine, journalism, the law, government, business, and industry. Some style guides focus on graphic design, covering such topics as typography and white space. Web site style guides focus on a publication's visual and technical aspects, prose style,

best usage, grammar, punctuation, spelling, and fairness. The strict implementation of style guide regulations provides uniformity in style and formatting of a document.

Many style guides are revised periodically to accommodate changes in conventions and usage. For example, the stylebook of the Associated Press is updated annually.

Publishers' style guides establish house rules for language use, such as spelling, italics and punctuation; their major purpose is consistency. They are rulebooks for writers, ensuring consistent language. Authors are asked or required to use a style guide in preparing their work for publication; copy editors are charged with enforcing the publishing house's style. Academic organization and university style guides are rigorous about documentation formatting style for citations and bibliographies used for preparing term papers for course credit and manuscripts for publication. Professional scholars are advised to follow the style guides of s in their disciplines when they submit articles and books to academic journals and academic book publishers in those disciplines for consideration of publication. Once they have accepted work for publication, publishers provide authors with their own guidelines and specifications, which may differ from those required for submission, and editors may assist authors in preparing their work for press.

Indexing of the published work, which can be a tedious task, can be done by the author, by a professional editorial indexer, or by computer software. If done by the author or close collaborators of the author who are not professional indexers, the work is called "self-indexed".

189. Distinguish between 'Use Studies' and 'User Studies'?

Sl. No.	Use Studies	Sl. No.	User Studies
1	Use study is the study of use of the library by members.	1	User study is the systematic study of information requirements of users in order to facilitate meaningful exchange between information

			systems and users.
2	Bibliometric study is the method for use studies.	2	Methods for User studies are: (i) Questionnaire method (ii) Interview method (iii) Diary method (iv) Observation method (v) Operation research study (vi) Information seeking situations/Critical incidents method.
3	Studies based on: (i) to qualify research and growth of different areas of knowledge (ii) to estimate comprehensiveness of secondary periodicals (iii) to identify users and authorship of documents on various subjects (iv) to measure usefulness of adhoc and retrospective SDI services (v) to try experimental models correlating or bypassing the existing models (vi) to identify core journals in different disciplines to formulate a need based acquisition policy (vii) to initiate effective multilevel network system (viii) to regulate inflow of information and their communication (ix) to develop norms for standardization.	3	Studies based on (i) Information Needs or Information Seeking Behaviour of broad communities like physicists or Santal communities or individuals in a single institution; (ii) use of particular information services, information centres or libraries and (iii) use of particular service, tool or product.

190. What is 'Institutional Repository (IR)/Digital Repository'?

An Institutional Repository (IR) is a digital archive where a university community's intellectual work is made accessible and preserved for posterity. The concept of institutional repositories suggests the tantalizing possibility of greater library influence over the full cycle of scholarly communication on campus, from research through publication, collection, and preservation.

191. What is ISDN?

Integrated services digital network is a set of communications standards enabling traditional telephone lines to carry voice, digital network services, and video. Prior to ISDN, the phone system was viewed as a way to transport voice, with some special services available for data. The key feature of the ISDN is that it integrates speech and data on the same lines, adding features that were not available in the classic telephone system. There are several kinds of access interfaces to ISDN defined as basic rate interface (BRI), primary rate interface (PRI) and broadband ISDN (B-ISDN).

ISDN is a circuit-switched telephone network system, that also provides access to packet switched networks, designed to allow digital transmission of voice and data over ordinary telephone copper wires, resulting in better voice quality than an analog phone. It offers circuit-switched connections (for either voice or data), and packet-switched connections (for data), in increments of 64 kbit/s. Another major market application is Internet access, where ISDN typically provides a maximum of 128 kbit/s in both upstream and downstream directions (which can be considered to be broadband speed, since it exceeds the narrowband speeds of standard analog 56k telephone lines). ISDN B-channels can be bonded to achieve a greater data rate, typically 3 or 4 BRIs (6 to 8 64 kbit/s channels) are bonded.

192. What is TQM?

British Standard BS7850 defined TQM as "Management philosophy and company practices that aim to harness the human and material resources of an organization in the most effective way to achieve the objectives of the organization".

TQM consists of three terms. Each term is significant where,

Total = Everyone has a role to play
Quality = Doing right thing first time, every time, all the time and
Management = Art of making it happen

193. Define Numeric Database.

Numeric databases (e.g. PREDICASTS) provide mostly numeric data such as statistics, financial data, census information, economic indicators, etc. to give answers to numeric queries. Generally, the difference between bibliographic and numeric information may not clear, but practically differentiating both of these is must. This may be clear by the possible answer of a particular query. Such as what is the diameter of mars? The answer of the same may be obtained 6972 km from numeric database. But its some answer may be? While in bibliographical databases, a list of so many documents is obtained for answering these types of queries. bibliographic reference may be available in numerical databases from which the information is obtained.

194. What do you understand by Online Search?

Service from the remote databases of information using a PC and intranet/Internet. This information can be searched and retrieved in a very flexible way, and captured electronically onto a file. Some of the online services available in India are NIC's Medical Information Service, NISCAIR's National Union Catalogue of Scientific Serials (NUCSSI), Current Contents of Indian Journals in Science and Technology, and databases in certain specialised subject such as Polymer Science, Indian Patents, and Indian Standards etc.

195. Name the tools of translation service.

Translation Tools
Publications of NTC:
(a) Author lists of Translations
(b) Bibliography of Translations of Russian Scientific and Technical Literature
(c) Translation Monthly, 1955-58

(d) Technical Translation, 1959-67
(e) Index of Translations (English), 1969
(f) Translation Register Index

Publications of ITC

(a) World Trans Index since 1978
(b) Journals in Translations by BLLD with cooperation of ITC

Publication of Agencies in Britain

(a) Translation Bulletin upto 1970
(b) BLLD Announce Bulletin since 1971

Specific Tools of Translations

(a) Translation Bulletin (Monthly Indexing Periodical)
(b) Index Translationum (A yearbook)

196. Define the concept of Knowledge Management.

The Encyclopedia of Library and Information Science defines knowledge management as "a management practice that uses an organization's intellectual capital to achieve its al mission.

According to Pan, Newell, Huang, and Galliers, "Knowledge management involves a range of processes including creating, sharing, integrating, storing, and reusing knowledge."

Dillon found that they tended to emphasize (1) return on investment (2) knowledge creation (3) information assets, or (4) knowledge management goals.

197. What do you understand by 'Re-engineering'?

It is the process of business organizations mainly as a response to financial, organizational and regulatory pressures to change.

198. What is 'Grey literature'?

The unpublished documents produced in limited quantities for specific purpose, belonging to 'development' literature in the field of social sciences, are called grey literature.

199. Explain 'Hybrid Library'.

A hybrid library is not just a traditional library (only containing paper based resources or just a virtual library (only containing electronic resources), but somewhere between the two. It is a library, which brings together a range of different information sources, printed and electronic, local and remote, in a seamless way.

200. List the name of library consortia/metropolitan network in India.

Metropolitan networks are: CALIBNET, MALIBNET, DELNET, BONET, ADINET, PUNENET.

201. Significance of motivation in Library Management.

There are seven imperatives of motivation in library management: (a) Ensure that workers motives and values are appropriate for the jobs on which they are placed; (b) make jobs attractive to and consistent with workers motives and values; (c) define work goals that are clear, challenging, attractive and attainable; (d) provide workers with the personal and material resources that facilitate their effectiveness; (e) create supportive social environments; (f) reinforce performance; and (g) harmonize all of these elements into a consistent socio-technical system.

202. Define the concept of 'Community Information Centre'.

Community information centre is the centre from which needed information be supplied to cope with 'crises in the lives of individuals and communities'.

203. What is Bibliometrics? What is the difference between Librametry and Bibliometry?

Pritchard used the term 'bibliometrics' in 1969 to describe all "studies which seek to quantify the process of written communication". Fairthorne (1969) defined bibliometrics as "the quantitative treatment of the properties of recorded discourse and behaviour pertaining to it".

Librametry primarily aims at the quantitative analysis of the management of libraries and bibliometrics is limited to recorded

knowledge. The publication in both the fields suggests that in librametry and bibliometrics, one examines the statistical distributions of the processes relating to:

1. The utilisation of documents
2. Library staff
3. Library users

204. Difference between Information and Knowledge.

Information	**Knowledge**
Static	Dynamic
Independent of the individual	Dependent on individuals
Explicit	Tacit
Digital	Analogue
Easy to duplicate	Must be re-created
Easy to broadcast	Face-to-face mainly
No intrinsic meaning	Meaning has to be personally assigned

205. What is Memex?

A memex is a device in which an individual stores all his books, records, and communications, and which is mechanized so that it may consulted with exceeding speed and flexibility. It is an enlarge intimate supplement to his memory."

The memex is a desktop information environment that includes a display screen for viewing information, a keyword and "sets of buttons and levers" for input and control, and a component "devoted to storage" that is sufficient in capacity that the user "can be profligate and enter material freely." Books, journal articles, news, pictures, and other sources of information can be purchased and stored in memex. Alternatively, the user has the ability to create new sources of information either by using the keyboard or by scanning materials not available for purchase. The scanner is capable of handling any kind of graphical information. Business correspondence and other forms of communication can be exchanged among memex users. The user can scan forward or backward through any document at whatever speed is suitable to the task at hand. The entire information store is indexed for retrieval, and commonly used search

commands are abbreviated as mnemonics to facilitate the search process. It is possible to display multiple sources simultaneously and to add personal notes and comments to documents. According to Bush, "all of this is conventional, except for the projection forward of present-day mechanisms and gadgetry."

In other words, the memex has all the characteristics of a sophisticated desktop personal computer and more. What makes Bush's vision of the memex phenomenal is that the capacity to build any machine remotely similar to the memex simply did not exist in 1945. Bush's primary storage mechanism was microfilm, not only kind of digital medium, and his primary input mechanism was a dry photographic process. Rather than sitting on top of a desk, the memex is the desk.

206. What is OAI-PMH?

OAI-PMH

Open Archive Initiative Protocol for Metadata Harvesting (OAI-PMH), is a protocol developed by Open Archive Initiative for harvesting metadata from the repositories who expose their metadata. This harvested metadata from various repositories is further stored to build services for providing search facility. It uses XML (eXtensible Markup Language) over HTTP. The main purpose behind the development of this protocol was to bring application-independent interoperability and extensibility. One of the simplest forms of interoperability among individuals Digital Library systems is the harvesting of metadata.

207. What is Deep Web?

Deep Web, also popularly known as 'Invisible Web' is primarily the information that popular, traditional search engines cannot or will not index. It refers to the vast repository of information that search engines and directories don't have direct access to, like databases. This information is stored on the web within various non-textual formats and free content-rich databases created by government agencies, educational institutions, and other organizations around the world. Most of the deep web content resides within specialized databases.

208. Mention some Health Science Databases?

1. Access Medicine (a repository of medical knowledge, the AccessMedicine site provides access to the Clinical features) 2. BioMed Central (Provides free access to original peer-reviewed biomedical research. Publications include full text journal articles, current reports, and meeting abstracts.) 3. CINAHL Plus with Full Text (World's most comprehensive Nursing and Allied Health research database) 4. Cochrane Library Online (best single source of reliable evidence about the effects of health care) 5. EMBASE.com (provides access to over 16 million validated biomedical and pharmacological bibliographic records from EMBASE and MEDLINE produced by US NLM) 6. Faculty of 1000 Medicine (scientific literature awareness tool) 7. IDIS/Web (Iowa Drug Information Service is a database of index records to articles about drugs and drug therapy in humans) 8. MD Consult (highly effective current clinical resources) 9. POPLINE (Population Information Online), the world's largest database on reproductive health) 10. ProQuest Medical Library (full text articles from more than 850 health science journals, Annual Reviews and back volumes) 11. PubMed (developed by NLM is designed to provide access to citations from biomedical literature) 12. SciFinder Scholar (gives access to CAS Registry, world's largest collection of substance database with over 92 million organic, inorganic, peptides, nucleotides and other substances with molecular structures, sequence codes and referring articles and patents.) 13. ScienceDirect (contains over 25% of the world's science, technology and medicine full text and bibliographic information. Apart from online eBooks, reference works, handbooks and book series, ScienceDirect offers a rich collection of over 2000 titles.) 14. Scirus (comprehensive science specific search engine which returns results from the web and the journal sources like ScienceDirect, MEDLINE on BioMedNet, Beilstein on ChemWeb, Neuroscion, BioMedCentral, US Patent Office, E-Print ArXiv, Chemistry PrePrint Server, Mathematics PrePrint Server, CogPrints and NASA.) 15. Scopus (abstracting and indexing database of scientific, technical, medical and social science literature. It includes peer-reviewed titles from international publishers, open access journals, conference proceedings, trade publications, patent records and quality web sources.) 16. SPORT Discus with Full Text (with over 230 full text titles, SPORTDiscuss with Full Text is a bibliographic and full text database covering both serial and monographic literature on sports science, physical education,

kinesiology, coaching, training, sport administration, officiating, sport law and legislation, disabled athletes, sports facility design and management, intramural and school sports, doping, health, health education, biomechanics, movement science, injury prevention, rehabilitation, physical therapy, nutrition, exercise physiology, recreation, leisure studies, tourism, allied health, occupational health and therapy.

209. What is Web Design?

Web (page) design is a process of conceptualization, planning, modeling, and execution of electronic media content delivery via Internet in the form of technologies (such as markup languages) suitable for interpretation and display by a web browser or other web-based graphical user interfaces (GUIs).

210. What is Web 2.0?

Web 2.0 describes the trend in the use of World Wide Web technology and web design that aims to enhance creativity, information sharing, and most notably, collaboration among the users. These concepts have led to the development and evolution of web based communities and hosted services, such as social networking sites, Wikis, Blog Mash-ups, Peer-to-peer networking, Podcast, RSS, Web services.

211. What is Library 2.0?

The Library 2.0 is the application of the concept of web 2.0 to the library world. It provides a rich, responsive user interface/establishes social networks of users with common interest and supports collaboration.

212. What is URL?

Web resources are identified with a special name called “Uniform Resource Locators,” which is simply an address of document on the web or net. These identify objects that may be accessed on the web. When one needs to navigate a web page, it is done through its URLs. This describes the protocol needed to access the web page and access points to its Internet location and home directory.

213. What is Subject Gateways?

Subject gateways are also known as subject-based information gateways, virtual libraries is an important component on information centres web site designed for the users so as to help them discover high quality information on the Internet in a quick and effective way. A gateway is similar to bridge in the fact that they connect one network to another but the real distinction lies in the fact.

http://www2.lib.udel.edu/subj/ling/Internet.htm
University of Delaware

http://www.library.ex.ac.uk/special/guides/subject/languages.html
University of Exeter

http://www.lib.ed.ac.uk/resbysub/englang_dbs.shtml
University of Edinburgh

214. What is the importance of use of RFID in libraries?

Radio Frequency Identification (RFID) is the latest technology to be used in library for:

a) Book identification
b) Self Check out
c) Sorting and conveying of library books
d) Theft detection
e) Increasing efficiency
f) Reducing data entry errors
g) Freeing up staff to perform more value added functions.

215. Mention some states where e-governance was implemented.

E-governance has been successfully implemented and functioning in some states i.e. Karnataka, Andhra Pradesh, Tamilnadu, Chhattishgarh, Delhi, Maharashtra, Gujarat, Haryana, Punjab, West Bengal, Uttar Pradesh, Kerala, etc,

216. What is Pod Cast?

"Podcasting is a process in which digital audio recordings are broadcast over the Internet to users who have signed up to receive them... like a traditional radio, only it is a cognitive medium and is available on demand for a specific topic." A podcast is a series of audio or video digital-media files which is distributed over the Internet by syndicated download, through Web feeds, to portable media players and personal computers.

Wikipedia defines social podcasting as "a form of podcasting that allows more than one author to insert content content into a podcast." Some podcasters may not have time to post podcasts regularly to keep the subject matter fresh but social podcasting permits the users also to contribute in that podcast and keep the subject matter fresh but social podcasting permits the users also to contribute in that podcast and keep updating the contents. Within podcasting communities, podcasts are easier to browse, search and to subscribe. Examples of social podcasting communities are Podbean, Blubrry etc. Software needed for publishing podcast is Audacity, a free, open source software for recording and editing sounds and Easy Podcast is a cross-platform GUI tool for easy podcast publication and many more.

The Ask a Linguist Web site is a service to which you can submit a question dealing with language or linguistics to a panel of linguists. It is provided by The Linguistic List, an Internet network for professional linguists that includes faculty members from Oxford University, the University of Arizona, and the University of Michigan. Podcast (http://linguistics.arizona.edu/podcasts/index.php) is University of Arizona Linguistics Lecture Slides Linguistics Lecture series presentation slides for the speakers who've elected to provide them are stored below. If you wish to view the presentation slides while listening to the podacsts, simply click on the link and the presentation will open in the Adobe Acrobat Reader.

http://languageinstitute.wisc.edu/content/uw_students/podacsts.htm

Language Institute – University of Wisconsin-Madison UW-Madison Podcasts in Languages and Linguistics. Click the links below to go to sites to listen or subscribe to podcasts in Dutch, English, French, German and Spanish! Many of the podcasts were produced with the assistance of staff from the College of Letters and Science Learning Support Services and with the Engage Programme in the Division of Information Technology.

217. What are Library Consortia?

Library consortium is the most popular channel of resource sharing these days. As per Oxford English Dictionary "Consortium means temporary cooperation of a number of powers, companies, etc. for a common purpose. It is an association of similar type of organization/institutions who are engaged for producing and serving the common things/for providing services for specific purpose of its users..."

218. Elucidate about the components of DBMS?

Components of DBMS are DBMS Engine, Data Definition Subsystem, Data Manipulation Subsystem, Application Generation Subsystem, Data Administration Subsystem.

DBMS Engine accepts logical request from the various other DBMS subsystems, converts them into physical equivalent, and actually accesses the database and data dictionary as they exist on a storage device.

Data Definition Subsystem helps user to create and maintain the data dictionary and define the structure of the files in a database.

Data Manipulation Subsystem helps user to add, change, and delete information in a database and query it for valuable information. Software tools within the data manipulation subsystem are most often the primary interface between user and the information contained in a database. It allows user to specify its logical information requirements.

Application Generation Subsystem contains facilities to help users to develop transactions-intensive applications. It usually requires that user perform a detailed series of tasks to process a transaction. It facilities easy-to-use data entry screens, programmeming languages, and interfaces.

Data Administration Subsystem helps users to manage the overall database environment by providing facilities for backup and recovery, security management, query optimization, concurrency control, and change management.

219. What is Web Dewey?

Edition 22 is the first edition of the Dewey Decimal Classification to be produced in the context of the web environment. Hence, WebDewey means the database of Dewey Decimal Classification on WWW (World Wide Web). WWW is the network of computers across the world

interconnected together on the Internet, and using the concept of hypertext to link Internet sites and information on the Internet. Like print versions of DDC, WebDewey is also found in both full and abridged versions; they are WebDewey and Abridged WebDewey.

220. Define User Interface.

The user interface (also known as *human computer interface* or *man-machine interface* (MMI)) is the aggregate of means by which people—*the users*—interact with *the system*—a particular machine, device, computer programme or other complex tool. The user interface provides means of:

- Input, allowing the users to manipulate a system
- Output, allowing the system to indicate the effects of the users' manipulation.

221. Explain the Benefits of Social Networking.

The initiation of web 2.0 tools and techniques resulted in a number of services and ideas; notable among them is social networking. Van Zyle points out that "social networking, incorporating web 2.0 technologies, has been credited with the ability to expand social contacts, accelerate business processes, the improvement of customer relations, cost-effective recruitment of high-caliber staff and the improvement of morale, motivation and job satisfaction among staff". Boyd and Ellison (2007) defined social networking as, web-based services that allows individuals to –

(i) construct a public or semi-public profile within a bounded system,
(ii) articulate a list of other users with whom they share a connection, and
(iii) view and traverse their list of connections and those made by others within the system.

The sums up the novelty of social networking as it kindled the imagination of users to construct a domain where they can articulate, view and traverse with the list of networked users. An important aspect of social networking is that it allows strangers to meet and at the same time it gives the freedom of articulating one's own ideas and interest. As often

it makes uses of websites social networking is often referred to as social networking sites (SNS).

Benefits

There are a number of benefits associated with social networking. They are:

- Provides creators with a global list of contacts, and multi level contacts through the first level of contacts.
- Brings people together to communicate, learn and share
- Brings together people with similar interests
- Forms a platform to moot and regulate ideas
- Provides a flow of information dissemination
- Assists in creating online resources
- Accelarates the process of knowledge dissemination
- Cost-effective marketing tool

Keeping the popularity and impact of such social networking in mind and to experiment with the available technologies in mind and to experiment with the available technologies to advance the symposium, the organizing committee decided to start a social networking site for the symposium.

222. Role of Aggregator regarding E- journals.

In general Internet terms, a news aggregation website is a website where headlines are collected, usually manually, by the website owner. In computing, a feed aggregator, also known as a feed reader, news reader or simply aggregator, is client software or a Web application which aggregates syndicated web content such as news headlines, blogs, podcasts, and vlogs in a single location for easy viewing. This client software helps in easy viewing of e-journals in a single location. E-Journal aggregator services provide full text consume a layer and larger proportion of library acquisitions budgets.

223. What is Pinakes?

In ancient times, the Library of Alexandria was seen as a universal store of human knowledge. As the Library grew in size, however, it became

increasingly difficult to locate relevant material. The poet Callimachus solved the problem by compiling a catalogue *The Pinakes*.

224. What is BUBL LINK/Web catalogues/Subject Guides?

http://bubl.ac.uk/link/linkbrowse.cfm?menuid=5885

BUBL LINK Catalogue of Internet Resources on language and linguistics. [United Kingdom] searchable and browsable libraries of networked knowledge covering all main subject areas.

225. What is Wikipedia?

Popular as wiki, this is a multilingual (45 languages), web based free content encyclopedia project. It is written collaboratively by volunteers from all over the world. One of the largest reference websites since it was created in 2001. Provides links to guides on related pages with added importance. It has navigation, search, interaction and toolbox facilities.

http://en.wikipedia.org/wiki/Linguistics

226. FAQs as Web based information sources.

A major source of information for questions with answers as "Frequently Asked Questions" devoted to a specified topic in the area of linguistics and allied areas. Such sites build knowledge for a learner and add knowledge to specialists. Such FAQs are also found in the library site which guides a new user as to how to use the library fully.

http://www.linguistics.unimelb.edu.au/thieberger/RNLD/RNLDfaq.html

Endangered Languages

Lexical Functional Grammar

http://lib.ex.ac.uk/screens/libfaq.html

University of Exeter Library

http://www.faqs.org/faqs/

Online Education

227. Examples of Mailing List.

http://www.ims.uni-stuttgart.de/info/MailingLists.html

http://members.terracom.net/-dorothea/elfling.html
http://www.baal.org.uk/amb_emaillinks.htm
http://www.linguistics.unimelb.edu.au/thieberger/RNLD/RNLDmailing.html

228. Examples of Usenet News.

http://cognews.com/links
Cognitive Science

229. Examples of Listserv.

http://www.cognitivelinguistics.org/emcillistserv.shtml
Cognitive Linguistics
http://www.libraryyale.edu/Internet/linguistics.html#listservs
Educational Linguistics

230. What is Newsgroups?

Newsgroups, discussion groups, list server are used almost in the same connation through these the user can choose to communicate with people or simply to observe other's communications.

231. Example of Newsgroups and Mailing List.

http://www.cs.technion.ac.il/-gabr/resources/news_mail.html

232. What is Web Logs?

Web log is a website that contains new articles or contributions in a primarily chronologically order, in which the most current one is on the top of the list. It is primarily a discussion-oriented instrument.
http//weblogs.ucalgary.ca/linguistics
University of Calgary
http://blogs.botw.org/Science/Social_Scienes/Language_and_Linguistics
Best of the web logs
http://www.abdn.ac.uk/langling/resources/funstuff.html

233. What is RSS/RSS Feed?

RSS feed defines a format to share data via web sites. Information provided by a website in an XML file is called a RSS feed. Netscape were the creators of RSS in 1999. But others like O'Reily and Dave Winer improved later versions. Visit to www.xml.com, www.dmoz.org, Wikipedia and other web resources provide details about the basic concept of RSS feed including its history. The latest version of RSS feed ver 2.0 is defined by Harvard (http://cyber.law.harvar.edu/rss/rss.html). RSS feed is a general term used for several variants known as XML feed, Atom feed or Web feed. Normally RSS feeds are of three types: Headlines only, Headlines with Excerpts and Full Text Feeds, Yahoo News, Reuters News Online are example of RSS.

234. Example of Online Conference site.

http://www.uni-koblentz.de/-compiling/Navigationshilfen/Library

235. Example of monthly online journal on Language in India.

http://www.languageinindia.com
Language in India
Language in India is a monthly online journal devoted to the study of the languages spoken in the Indian sub-continent.

236. Example on Script-Online site in India.

http://www.cs.colostate.edu/%7Emalaiya/scripts.html
Languages and Scripts of India
Large collection of varied sites on languages, linguistics, writing, and South Asian languages texts and manuscripts.

237. Example of Social Networking Sites.

Social networks are built upon a hypothesis that there exists a determinable networking structure of how people know each other. It helps to build a network among the interested group in discussing the common interest.
http://www.elpub.net/Blog set up as part of conference 2008

238. Example of Language and Literature Portal.

http://www.loc.gov/rr/international/asian/indi/resources/india-language.html

These are the resources selected by the library of congress subject experts. This pathfinder includes information about language and literature in India created and maintained by the Asian Division.

239. What is Surface Web?

The Surface Web, as the name itself suggests, consists of all web resources that are indexed by common search tools like directories, generic search engines and meta search engines. Each of these tools consists of a unique database of web pages that are available on web. The size of this database, the way it is constructed, the currency of the database and the algorithm used to search the database and rank the search output are the critical factors that determine the success of these tools in navigating the surface web. Surface web, thus is the collection of all databases of web pages that are indexed and made available for search.

240. Define Electronic Resources.

Wikipedia defined as "Any publishing available information resources which can be accessed in a personal computer, these include commercially produced resources such as bibliographic databases (accessed online or via CD-ROM) electronic books as well as resources that have been made freely available via on the Internet".

241. Mention the types of E-Resources.

There are two types of E-Resources, (i) Online Resources (ii) Offline Resources

1. Online Resources: Resources which are used with the help of Internet.

- Static Resources: They contain fixed information and never change form.

- Dynamic Resources: Such documents also contain fixed information, but this information can change its outward form (Multimedia CD-ROM).

Living Resources: Such e-resources can change their outward appearance and their embedded information (e.g. information on the WEB). These are the server and client based information resources. These are also called remote access resources or online resources because the location of the server is somewhat else.

All the types of online resources mentioned can be broadly grouped into two categories:

a) Subscribed Electronic Information Resources (SIER): To access this category of ER, some subscription amount/fees have to be paid in to the publisher/owner.

b) Free Electronic Information Resources (FIER): Such resources are freely available on the Internet and can be divided into subcategories like, Open access journals/free journals, information available at Institutional Repositories, Organizational/Individual's Websites, Individual's websites, Individual's blogs/Professional discussion forums.

Apart from these online e-books, e-journals, e-theses, e-dictionaries, e-directories, e-handbooks, e-newspapers, e-encyclopedias, Web rings, Library network databases, Library Websites FAQs, Web OPACs, Digital Archives, Bulletin Boards, Virtual Conferences, Web Exhibitions, Virtual Help Desks etc.

2. Off line Resources: Resources which are used in absence of Internet such as CD-ROM, Jukebox, Audio Visual Aid etc.

242. Define Electronic Resource Management.

Electronic Resource Management (ERM) is the system that supports management of the information and workflows necessary to efficiently select, evaluate, acquire, maintain and provide informed access to electronic resources in accordance with their business and license terms.

243. What are application of RSS in Library and Information Centres?

Information professionals need tools to find relevant information and provide value added service to their users. Really Simple Syndication (RSS) is one of the many emerging content creation and management tool that information professionals can use to simplify the process of finding and rendering information service.

Information professionals can make use of RSS feed in two ways:

1. Subscribe to RSS feed: Use RSS aggregator to extract information from a web log or RSS feed of other web sites.
2. Generate RSS feed: Incorporate RSS feed on library web site to provide information service to their users.

Users too can benefit from the RSS feed option. They can set a preferred by subscribing to select RSS feeds of their interest. Users can save lot of their time spent in browsing and navigating web sites for relevant information.

Irrespective of the type of library, general benefits of RSS feed are:

- Announcement of the availability of new books and other resources in a given subject area
- Libraries can subscribe to RSS from the sources for compiling their customized alerts
- Promote events organized in the Library for Library Users
- Enhance Library Instruction for different Web 2.0, Library 2.0, Blogs, Wikis, RSS, Tagging, Podcasting, IM programmes/courses by integrating appropriate resources
- Announce availability of new research and learning opportunities in various academic/research
- Integrating library services through RSS feeds
- Saves time of the user, especially to locate information. Libraries can subscribe to RSS feed of other web sites. Filter the required feeds, organize the feeds and then add on their library web site.
- Increase visibility of the information resources, even those that are available at different locations.
- Improve the positioning of services offered via RSS feeds. This will help to convert potential users to regular users.

- Internet News is abundant, but finding specific information is tough. RSS feed can be used to provide "one-hit-access" to the users for latest news.
- With help of RSS feed the users are free from the hassles to remember navigational modes of the website.
- Launching new information products is simpler with RSS feed.
- RSS feed can be used to broadcast information on Intranet or Internet.

Use of RSS Feed for Library and Information Services

RSS is an XML feed that streamlines content syndication. In other words, it's a way to subscribe to websites, and elements of websites that a user wishes to receive on an ongoing basis. An RSS aggregator or feed reader is required to operate RSS Feeds. A useful list of RSS readers can be found at – http://allrss.com/rssreaders.html. Use of RSS feeds is not limited to blogs, news sources, or commercial web sites. An increasing number of libraries have also begun to offer RSS feeds to promote and extend their services.

244. What is Web Resource?

Online publication medium to a platform for carrying out complex tasks such as shopping, learning, communication and collaboration are called web resources.

The following sources are available over the web:

1. Electronic Journals 2. Electronic Discussion Lists/Forums 3. Usenet News 4. Data and Software Archives 5. E-mail based Information Services 6. Campus wide Information Systems 7. Library Catalogues – Web OPACs 8. Online Databases 9. Guides to Information Sources 10. Search Engines 11. Subject Gateways 12. Web Directories 13. Online Chatting 14. Commercial Advertisings & Customer Service Information 15. Organization's Directories 16. Bulletin Board Services 17. Full Text of Documents.

Types of Web Resources:

1. Open Web: Anything online that can be found freely with a Search Engine
2. Gated Web: Online Resources accessible by Subscription e.g. OED, CA, LISA, BIOSIS, INSPEC, COMPENDEX etc.

3. Invisible Web: Databases that are not found by Search Engines and can only be accessible through a particular page or front end e.g. LC's American Website http://memory.loc.org

Means of Access to Web Resources

1. Through Search Engines
2. Through Web OPACs
3. Through Specified URLs/Web sites

Basic Types of Web Resources

Web resources have three basic types

1. Descriptive type 2. Functional type 3. Interconnective type.

The three resource types are mutually independent to each other. The descriptive type are static content, data resources, the functional type are dynamic behaviour, service resources and the interconnective type are interconnective link, link resources. Due to the independent nature of these three types resources, we need to have varied quality and quantity measurement for each of the individual type of web resources.

Barriers in Using Web resources

- Some of the web resources are too costly
- Resources are difficult to adapt to the needs
- Content trust on the published web resources
- Resources are not available in standard formats
- Internet Connection Problems (e.g. Speed, Reliability)
- Limited access to the Internet
- Printing Problems
- Problems with Computer Hardware and Software
- No Support from Colleagues or Superiors or from management
- Lack of fund

245. What are the needs for Web-Services?

1. Due to globalization of education, it is essential to bring Teachers and students together at the same time. It is possible through e-learning;
2. Educational Institutions wants enhancement in their competitiveness by training to manpower;
3. Teachers and students want to enhance their learning opportunities;

4. Widespread proliferation of Information Technology has enabled the Teachers and Students to have access to Internet.

246. What are the advantages/benefits and promotion of Web Resources?

1. To identify the resources on the web;
2. To become aware on the web resources;
3. To evaluate the web resources for the library users;
4. To become aware and to implement the gateways and virtual libraries;
5. To enrich knowledge on acquisition, information storage and retrieval, and dissemination of the web resources;
6. To improve the IT skills and to facilitate in providing information (web resources) for the library users;
7. To know the state-of-the-art facilities in the library field.

In other words, web resources become the format of choice for academic library patrons as they offer to-day's users many opportunities that were not available to predecessors. The advantages of resources are:

1. International reach
2. Speed of Communication
3. Unlimited capabilities
4. Reduced cost
5. Convenience
6. Searchability
7. Linking

<u>Benefits of Web Resources</u>

<u>To the Students</u>

1. Place to store history of development and growth
2. Control over the information that is stored, displayed and accessed
3. Can collaborative with anyone in the world
4. As a tool to demonstrate their skills and competencies required by employers
5. It can serve as a streamlined application by removing the need to fill out multiple applications or doing photocopies
6. Developing the student's ability to reflect to their experiences
7. Helps in planning more effectively for career development

8. If a student want to transfer, the e-Portfolio data my ease the process of articulation with another institute or university
9. Even after completion of study having their work still available to them in a university-supported environment encourages in sustaining the relationship with their alma mater.

To the Faculty

1. Means of assessing students learning and preparing them for lifelong learning
2. Tool to better manage, review, reflect and comment on student work
3. Can use to build their own professional e-Portfolios to document successful teaching and accomplishments for promotions and tenure reviews, grants, publications, consulting, and other professional development activities
4. Means to share content with peers
5. It helps in recalling student performance even after course completion. Say for example designing a letter of reference after some years

To the Parents/Guardians

1. As a tool to remain updated about academic progress of their dear and near ones.

Promotions of Web Resources

The libraries in the digital world move faster, rely on technology, and compete more intensely. The digital library initiatives enhance the services of the existing libraries and the promotional ways adopted for the E-resources service. In the library environment "Promotion" is the work of informing the end users the new services to secure the survival and prosperity. Promotion is an essential process for libraries and information centres because they:

1. Wish to achieve high level of customer satisfaction
2. Want to enhance the perceived value of their services
3. Would like to ensure the survival and prosperity of their respective institutions

247. What is Web-based Instruction?

It is a "hypermedia based instructional programme which utilizes the attributes and resources of the World Wide Web to create a

meaningful learning environment where learning is fostered and supported".

248. What is Virtual Learning?

The educational process of learning over the Internet without face-to-face contact is known as virtual learning. However, for some virtual learning may also include telelearning.

249. What is Online Learning?

It is synonymous to web based learning where learning is fostered via WWW only, in an Intranet or Internet. Mishra calls it as the new generation in the evolutionary growth of open, flexible and distance learning.

250. What is E-Learning?

The term e-learning covers a wide set of applications and processes including computer based learning, web-based learning, virtual classroom, and digital collaboration. However, the term e-learning is becoming widely accepted as a substitute for online learning and web based learning.

The web today is used in three different ways by educational institutions:

1. Web integrated in the classroom teaching, that works as supplement to the face-to-face teaching;
2. Web used as a 'mixed mode' approach to complement face-to-face teaching, normally called 'blended e-learning'; and
3. Web used independently for teaching and learning as replacement for face-to-face teaching.

251. Mention some Web-Services.

Web Services

1. List of online journals
2. E-books list
3. Maintaining the database of the important articles from different Magazines/Journals

4. OPAC (Online Public Access Cataloguing) – search for the books, journals and articles available in the Library
5. Addresses of Reference Libraries – Where one can find their pinpointed information/article
6. List of websites which provides number of educational and other related active websites
7. News on Conference/Seminars
8. CD's available in the library
9. Library Security Deposit Rules
10. Library News and Views – Information about the library and views of its users about the library
11. List of Online and Printed Journals – subscribed by the library for the current year as well as back volumes
12. Archive of the Photographs (Year wise) – available in the library to know more about its alumni
13. Recent address – to the library (New arrivals)
14. Suggested Books/Journals – by the faculty members/students/users of that particular library

252. Mention the use of RSS feed for CAS.

RSS feed also used for CAS
Libraries can generate RSS feeds on following topics:
1. News and announcements 2. Events 3. Institutes/Companies (competitors) – new developments 4. Products/services offered 5. New information sources 6. Instructional and reference service

253. Define Portal?

A portal is a central place for making all types of information accessible to an audience of varying range. It has been defined as a web site that provides the ability to use a secure username/password and to customize the content based on specific interests and needs.

The term portal is so overused as to be meaningless. In better terms, Lowey defined Web Portal as "A one-stop client-oriented website that personalizes the portals tool and information to the specific needs and characteristics of the person visiting the site, using information from a specific field databases".

Taking some more easily, Web portal can be defined as,

1. A collection of links
2. A collection of services
3. A collection of links and services
4. A collection of services

There are various ways of describing portals. Three community used terms are “horizontal”, “vertical” and “Affinity”.

A horizontal portal is a broad, general portal usually aimed at consumer audiences. It typically offers free e-mail, personal home pages, instant messengers, news, weather and more. Google, Yahoo, MSN, and AOL are examples of horizontal portal.

A vertical portal (sometimes referred to as a “vertical”) provides information and services related to a particular subject or industry. WebFlyer, WebMD, MyFlorida.com are examples of a vertical portal that provides user-customized information about Florida government.

Affinity portals like iVillage.com (women) and Realtor.com (realtors) provide deep content, commerce and community features like those found in vertical portals, but these offerings are targeted toward a specific market segment or even a specific gender. The revenue model is similar to vertical portals, with cost and asset models based on the business model adopted by the portal.

254. Mention the types of Portal based on function.

Dias describes several types of portal based on function:

1. <u>Decision Support</u>

- Information (organizes collections of information by subject);
- Business (facilitates access to internal documents and information); and
- Decision processing (provides value-added information on demand)

2. <u>Collaborative Processing</u>

- Collaborative (provides groupware tools and work-flow systems); and
- Expertise (facilitates access and connection to individuals based on expertise)

3. <u>Decision support and collaborative processing</u>

- Knowledge (is a combination of an information, collaborative, and expertise portal); and

- Enterprise information (uses metadata and XML to integrate unstructured data to structured data through a personalised intranet interface)

255. What are the functions of a Portal?

The portal is the tool that links the various silos of KM (internally and externally), in a meaningful way, into one unified source to facilitate policy making and decision making. 'The portal is the interface, the place where information exchange and knowledge transfer takes place, but it is only one component of successful KM. For example, the Corporate portals have the potential of providing organizations with a rich and complex shared information work space for the creation, exchange, retention, and reuse of knowledge.

256. What is Explicit Knowledge? Discuss it advantages and disadvantages.

When an individual combines discrete pieces, such as a finance manager collecting and synthesizing information and opinions from different parts of the financial report called explicit knowledge.

Subject insights, institutions and hunches fall into this category. It is not visible nor management a challenge.

<u>Advantages</u>

(a) Articulated knowledge (explicit knowledge assets) may be moved instantaneously anytime anywhere by information technologies.

(b) Codified knowledge may be proactively disseminated to people who can use specific forms of knowledge.

(c) Knowledge that has been made explicit can be discussed, debated, and improved.

(d) Making knowledge explicit makes it possible to discover knowledge deficiencies in the organization.

<u>Disadvantages</u>

(a) Considerable time and effort may be required to help people articulate their knowledge.

(b) Employment relationship with key knowledge workers may have to be redefined to motivate knowledge articulation.
(c) Expert committees must be formed to evaluate explicit knowledge assets.
(d) Application of explicit knowledge through out organiation must be assured by adoption of best practices.

257. Define Tacit Knowledge.

Tacit sources of knowledge include individual employee's expertise, memories, values and beliefs.

Advantages
(a) Relatively easy and inexpensive to begin.
(b) Employees may respond well to recognition of the (claimed) knowledge.
(c) Likely to create interest in further knowledge management processes.
(d) Important knowledge kept in tacit form may be less likely to 'leak' to competitors.

Disadvantages
(a) Individuals may not have the knowledge they claim to have.
(b) Knowledge profiles of individuals need frequent updating.
(c) Ability to transfer knowledge constrained to moving people, which is costly and limits the reach and speed of knowledge dissemination within organization.

258. Mention the categories of Knowledge Management System.

Knowledge Management System (KMS) falls into four categories:
1. Content management tools: Tools that offer abilities to integrate, classify, and codify knowledge from various sources.
2. Knowledge sharing tools: Tools that support sharing knowledge between people or other agents.
3. Knowledge search and retrieval systems: Systems that enable search and retrieval and have some knowledge discovery abilities.

4. General KMS: Systems that propose an overall solution for a company's knowledge management needs.

Among these general KMS, corporate portals seem to present the potential of providing organizations with a rich and complex shared information workspace for the creation, exchange, retention and reuse of knowledge.

259. Define Knowledge.

Intellectual capital is the knowledge that comes from the developed and accumulated experience, service, and products of the organization's employees, at all employment levels. This knowledge can be explicit (captured in a format) and tacit (not captured or recorded).

260. What are the benefits of Corporate Management?

i. It leads the corporate KM strategy, creating and selling the KM vision, and helping other organizational leaders drive the company in the desired direction.
ii. It promotes an organizational culture that facilitates tacit and explicit knowledge development and knowledge sharing; recognize and promotes enterprise-wide knowledge development/knowledge sharing recognize and promotes enterprise wide knowledge development/knowledge sharing contributors.
iii. It champions the development of a KM budget and serves as an advocate for keeping KM resources available.
iv. It evaluates the effectiveness of KM projects and their contribution to the corporate mission; benchmarks with other organization (public and private).
v. Develops strategies, in co-operation with the established training and development operation, to facilitate training and education for knowledge workers.
vi. It champions cross-organizational communities of practice.
vii. It establishes relationships with related leaders: Human Resources, Organizational Learning, information technology (IT) company librarians/records managers/archivists, etc.

261. What are the components of Knowledge Management?

Four components of KM are:

i. Organization of knowledge using a normalized taxonomy that enhances the goals of an organization.
ii. Availability of information/knowledge when and where it is needed through high-end intelligent access.
iii. Ability to connect knowledge with the people who created it (pairing knowledge with experts).
iv. Publication of knowledge so it can be reused and further shared.

262. What is CED model of subject classification?

The Centre for Education and Documentation (CED), Mumbai developed its indigenous classification system in 1979, where the emphasis was on issues of civil liberties and human rights. The classification system was revised in 1986. The notation is alpha-numeric with two digits and further sub-classification by means of lower case alphabets.

263. What is Akshara Classification System?

The Akshara Classification System (ACS) was designed and developed essentially by two women Lakshmi Menon & Nandita Gandhi of Akshara Centre Mumbai, to attend to the documentation needs of women's centres and other NGOs.

Jagori, Chetna, Sakhi, The Human Rights law Networks, Tathapi Trust, Vikas Adhyan Kendra (VAK), People's Union for Civil Liberties (PUCL) are used ACS or similar ontology.

264. What are the objectives of Knowledge Management?

The important objective of Knowledge Management in libraries is to promote knowledge innovation.

i. As bases for education, processing, storage and distribution of knowledge and information libraries represent an indispensable link in the knowledge innovation.
ii. Libraries take part in scientific research process directly.

iii. Libraries must pay attention to diffusion and conversion of knowledge.

According to Mike Devidson, the objectives of knowledge management programme include four dimensions:

- Mission : What we are trying to accomplish?
- Competition : How do we gain a competitive edge?
- Performance : How do we deliver the results?
- Change : How do we cope with changes?

Other objectives:

(a) To create knowledge repositories which store both knowledge and information, often in documentary form. A common feature is 'added value' through categorization and pruning.

(b) To improve knowledge access, or to provide access to knowledge or to facilitate its transfer among individuals; here the emphasis is on connectivity, access and transfer and technologies such as video conferencing systems document scanning and sharing tools and telecommunications networks such as video conferencing systems, document scanning and sharing tools and telecommunications networks are central to this objective.

(c) To enhance the knowing environment so that the environment is conducive to more effective knowledge creation, transfer and use. This involves tackling organizational norms and values as they relate to knowledge.

(d) To manage knowledge as an asset, and to recognize the value of knowledge to an organization. Assets such as technologies that are sold under license or have potential value, customer databases and detailed parts catalogues are typical of companies intangible assets to which a value can be assigned.

265. What is Core Knowledge?

The basic body of knowledge required of all players in an industry in order to remain competitive.

266. What is Advanced Knowledge?

Knowledge that distinguishes an organization from other players in its industry in a degree sufficient for achieving a competitive edge.

267. What is Innovative Knowledge?

Knowledge held/applied by an organization that is so distinctive that it is the basis for being a market leader in the industry.

268. What are the KM activities of an organization?

Following are the basic activities of the KM of an organization:

- Understanding Business, Goals & activities – to define KM objectives
- Knowledge Mapping
- Understanding People, Processes: to know business, processes: to know business, processes also finding K-gaps or overlaps at all at primary level.
- Defining Questionnaire for capturing details about what is Knowledge?, What are the K-needs, K-Flow, K-Inventory of Existing Knowledge
- Conducting K-Audit
- Identification of overall Knowledge gaps & overlaps
- Knowledge Strategy formulation

269. What are the KM competencies?

- Knowledge audit assessment and mapping
- Metadata and Taxonomies
- KM strategy formulation and implementation roadmap (for clients)
- Yellow pages of Experts
- Identification and management
- Collaboration across business units, cultures and geographies to achieve common goals
- Special Interest groups, discussion forums and social networks
- Portal, Document Management, Search and Collaboration technologies
- Wikis and Blogs
- Reusable components

- Shared workspaces
- Best practice management
- KM metrics, measurement and reporting through dashboards

270. Mention the KM Technologies/Software.

The following are some of the Proprietary technologies identified for KM activities:

- eGain Knowledge Agent™
- SmartHelpDesk™
- AskMe Enterprise
- ARES Provides the Competitive Edge for your Business Needs
- KnowledgeStorm Inc
- KNOVA Version 7.2 named Trend-Setting Product of the Year by KMWorld

271. Mention the Semantic Web Languages.

World Wide Web (W3C) has designed a set of web languages to express the meaning of the information resources on the web and each of these languages is the extension of the former:

- XML (Extensible Mark-up Language)
- XMLXML Schema
- RDF (Resource Descriptive Framework)
- RDF Schema
- OWL (Web Ontology Language)

272. What are the key features of Simple Knowledge Organization System (SKOS)?

SKOS has three components:

- SKOS Core
- SKOS Mapping
- SKOS Extensions

Semantic Relationships:

- SKOS: Semantic Relation (paradigmatic)
- SKOS Broader
- SKOS Narrower

- SKOS Related

273. What are the objectives of National Knowledge Commission?

The following are the major objectives of National Knowledge Commission for overall development in India:

i. Access to Knowledge
ii. Knowledge Concepts
iii. Knowledge Creation
iv. Knowledge Application
v. Knowledge Services

274. What are the advantages of Digitization?

The digitization has many advantages; some of these include:

i. Immediate access to high demand and frequently used items;
ii. Faster and easier access to and enhanced ability to search the remotely held digital material;
iii. Ability to enlarge and enhance digital images;
iv. Preservation and accessibility of rare, fragile and out-of-print material;
v. Integration of images, audio, video and text; and
vi. Reduction in the cost of document delivery.

275. What are the problems of Digital Technology?

Apart from illegal copying, unauthorized downloading and transmission to third parties, etc the digital technologies have given way to several new concerns, some of which are listed below:

i. Cyber fraud
ii. Cyber squatting
iii. Cyber Stalking
iv. Plagiarism
v. Phishing

276. What are the technologies for safeguarding Intellectual Property?

Several technologies have been developed (and many more are being developed) to provide digital information such as electronic copyright management systems and Digital Rights Management.

Many academic institutions and publishers took initiatives to develop secure technologies for delivering electronic information to users, especially in a network environment. These include Performing Arts Teaching Resources Online (Patron), Electronic Reserve Copyright Management System (ERCOMS), and the Electronic Library and Information Retrieval Online Project (ELINOR), Project Cited, RightPages TM Service, TULIP, Security and Rights Management System. Other Solutions are Open Access, Open Notebook, and Institutional Repositories.

277. Who protected the Copyright of Databases?

Computer databases are treated as compilations/collective works and protected by Berne Convention, Patent Co-operation Treaty (PCT), Paris Convention, Madrid Agreement on International Registration of Marks, Universal Copyright Convention, WIPO Copyright Treaty, and TRIPS (Trade Related Intellectual Property Rights) Agreement.

The creator or developer of the database is generally treated as its author. It is protected through copyright, contracts, license agreements, technological means keys/dongles), ECMS, etc.

278. How the Copyright of Multimedia works protected?

These works can be protected through signal processing, data compression, encryption, and incorporation of visible/invisible watermark or a digital signature multimedia protection protocol.

279. How the Copyright of Websites protected?

When creating a Website, if one wants to use some neat images found on the Web with due credit to the artist, one needs permission as copyright applies to the web (free access is not public domain; proper credit (citation) is important to academic plagiarism, but not to copyright).

280. What is the current situation of Karnataka Public Library System (KPLS)?

At present, in India, KPLS is one of the most popular and feasible systems, as compared to those in the other 27 states in India. The current situation (as on March 2008) of the KPLS is as under:

Sl. No.	Library/Depository Centres	Total No.
1	State Central Library	1
2	Indira Priyadarshi Children Library	1
3	Technical Library	1
4	City Central Libraries	26
5	District Central Libraries	29
6	Mobile Libraries	15
7	Branch Libraries	490
8	Service	107
9	Village Panchayat Libraries	5766
10	Grant-In-Aid	21
11	Book Depository Centres	2655

281. Objectives of the proposed network of Karnataka Public Library System (KPLS)?

The proposed networking of Public Libraries in the state of Karnataka would:

i. Facilitate access to information and library materials for wider audience especially in rural areas.
ii. Facilitate effective bibliographic control at the state level (preparation of union catalogue of library materials) and use of information generated in and outside the state.
iii. Enhance the nature, quality and types of services.
iv. Encourage the exchange of information between and among libraries operating in the State with the help of Information Technology.
v. Achieve standardization among libraries through the adoption of standard bibliographic tools and services.
vi. Establish digitization units at the state, district and regional levels for preservation of cultural heritage materials etc.

282. Mention the major methods of Resource Sharing.

The major methods of resource sharing in print era are:

i. Regional cooperation in form of inter-library loan
ii. Document Delivery Services
iii. Institutional Membership
iv. Consortia

283. Mention the needs of Resource Sharing/Cooperative Collection Development.

The needs of resource sharing/collaborative collection development are:

i. Increase the library's access base
ii. Avoid unnecessary duplication of materials in a region or group
iii. Multiply library materials purposively within the constraints of a limited budget
iv. Facilitate accountability to external agencies
v. To develop specializations locally
vi. Enhance the user base-access from the desktop of the users
vii. Place emphasis on access than ownership
viii. Benefit the nation as a whole to increase the use of books and information and cut costs

In other way, needs are as follows:

i. Increased international cooperation
ii. Proliferation of e-information sources/sharing existing sources
iii. Emerging new technological tools developments in network associated with electronic delivery, electronic journals and variety of web based facilities that provide access to wide range of other databases
iv. New information products and services
v. Increase in user's skill in search of information
vi. Economic competition and information access and delivery, focusing more on electronic resources using leverage of a group and common funding sources

284. Explain the meaning and problems of Group or Aggregated Subscriptions?

E-journals are the major source being subscribed under the consortia subscriptions. In most of the libraries subscriptions are not for single or individual journal, but subscriptions are for aggregations of journals.

- This type of subscription is generally cheaper than individual journals.
- Subscription cost and subscription processing efforts are also comparatively less.
- Some bonuses are also available with group subscription.

Some problems are also associated with group subscriptions:

The publishers or a central agency decides the formation of groups or aggregates, and it is not necessary that all the journals in an aggregate will be of use to all the libraries in a consortium.

Most of the technical libraries are members of one or the other consortium. All consortia subscriptions like IEL online, ASME, ASCE, ACM are the aggregate subscription. Decisions for forming the aggregates are taken at some central level.

285. How many members of INDEST-AICTE consortium?

Indian National Digital Library in Engineering, Science and Technology – All India Council for Technical Education consortia comprised of 773 members consisting of core members, AICTE supported members and self supported institutes.

286. How many e-journals subscribed by INDEST-AICTE consortium?

The consortium subscribes to over 6500 e-journals from a number of publishers and aggregators.

287. What are the objectives of INDEST?

The INDEST-AICTE consortium has the following objectives: to subscribe electronic resources for the members of Consortia at highly discounted rates of subscription and at the best terms and conditions;

- To extend the benefits of consortia based subscription beyond the core members to other engineering and technological institutions;

- To impart training to users and librarians of member institutions on subscribed electronic resources with the aim to optimize the usages of electronic resources;
- To find more avenues of cooperation and interaction among member libraries;
- To increase interaction among member institutions; and
- To increase scientific productivity of member institutions in terms of quality and quantity.

288. Mention the major activities of INDEST-AICTE consortium.

Major activities of the INDEST-AICTE consortium are as follows:

- To arrange subscription to identified electronic resources for member institutions;
- Identification and subscription of new resources;
- Interaction with of member libraries to ensure optimal utilization of subscribed electronic resources;
- Organise training programmes for the member institutes on use of Electronic resources;
- Initiate additional activities complementary to the present activities of the consortium and;
- Encourage interaction amongst member libraries.

289. Mention the core members of INDEST-AICTE.

As on October 11, 2008 thirty seven centrally funded Government institution including IITs, IISc., NITs, IIITs, IIMs, ISM, SLIET, NERIST and NITIE are core members of INDEST-AICTE.

The INDEST-AICTE consortium has enrolled sixty additional members with financial support from the AICTE (as on October 11, 2008). More than 676 (as on October 11, 2008) engineering colleges and institutions have already joined the consortium under this proposition.

On the basis of core subject areas core members have divided into different groups/categories as detailed below:

- Group 1: IITs and IISc
- Group 2: NITs, ISM, SLIET and NERIST
- Group 3: IIITM Gwalior and IIIT Allahabad
- Group 4: IIMs, IIITM and NITIE

290. Mention the problems of resource sharing.

- Lack of awareness about consortia benefits
- Slow acceptance of e-information by the users
- Difficulties in changing the mind setup of librarians
- Maintenance and balancing both physical and digital library
- Inadequate funds
- Single point payment
- Rigid administrative, financial and auditing rules
- Problems of defining asset against payment
- Pay-per-view not yet acceptable
- University about the persistence of digital resources
- Lack of infrastructure for accessing electronic sources
- Unreliable telecommunication links and insufficient bandwidth
- Lack of trained personnel for handling new technologies
- Absence of strong professional association
- Big brother attitude

291. Mention the sources used to develop website.

Following are some sources we used to develop the website:

1. Microsoft Publisher (one component of Microsoft Office software)
2. Free Web Space
3. Free Domain Name
4. Free FTP Manager
5. Free Linked Files support
6. Groups and Community

292. Mention the objectives of consortia.

1. Increase the cost benefit per subscription
2. Promote the rational use of funds
3. Ensure the continuous subscription to the periodicals subscribed
4. Guarantee local storage of the information acquired for continuous use by present and future users
5. Develop technical capabilities of the staff in operating and using electronic publication databases

6. Strategic alliance with institutions that have common interest resulting
   a) Reduced information cost
   b) Improved resource sharing

293. How do library consortium works?

1. Loosely Knit Federation
2. Multi-Type/Multi-state Network
3. Tightly Knit Federation
4. Centrally Funded State wide Consortia

294. Mention the salient features of the consortium.

1. Small group of homogeneous, like-minded professionals have facilitated better communication and understanding between publishers and an agent issuing individual invoice, single payment, signing by individual library.
2. Model facilitated cross e-access to all print journals subscribed
3. Members are not burdened with marginal interest journals, which otherwise is a standard offer of bundled journals from publishers.
4. Institutional usage statistics is provided periodically, viz. weekly, fortnightly and monthly.

   It was win-win situation for both publishers and consortium participants in terms of the decreased cost of electronic access to e-journals and increased volume of sales for publishers.

<u>In other way the salient features are as follows</u>:

(a) To eliminate the different problems faced by the libraries to provide various services to the users;

(b) To meet the thrust of information of the vast people due to rapid growth of population all over the world;

(c) To cope up with the newly generated knowledge published in different forms, such as print and non print documents, electronic media on various disciplines, multi-disciplinary and new generated subjects areas;

(d) To collect all the documents published at the national and international level, because of the library financial crunch, and

(e) To overcome to language barriers i.e. primary documents are being published by the developed countries like USA, UK, France, Japan

etc. and among them the non-English speaking countries produce majority of scientific literatures in their mother languages.

295. What are the factors motivating consortia licensing?

For access to electronic resources, one needs licensing for:

- Users need rapid on the computer screens, locations and time dependent;
- There is proliferation of electronic resources and electronic versions of traditional print materials; there is need to license databases;
- Funding agencies provided additional budgets to support access to researchers, to improve information access;
- Negotiate for multi sites can save publishers and information providers time and money;
- Consortia contracts bring many users eyeballs to a resource all at once.

296. Mention the benefits/advantages of resource sharing.

The benefits of a consortium include:

- Quality of service is enhanced
- Cost of service is reduced
- Duplication of stock is minimized
- More information is available with less payment

297. What are the functions of library consortium?

The various steps of jobs/functions can be adopted by a consortium for functioning standing on a common platform, which are:

1. Agreement for establishment of a consortium
2. Administration of library consortium
3. Financial control
4. Joint work
5. Evaluation

298. What is Digital Divide?

The term 'digital divide' describes the fact that the world can be divided into people who have and who do not have access to or capability to use the modern artifacts, such as telephone, television, or the Internet. The digital divide exists between those in cities and those in rural areas.

According to a recent OECD publication, (www.oecd.org) the term 'digital divide' refers to the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard to their opportunities to access Information and Communication Technologies (ICTs) to their use of Internet for a wide variety of activities. The digital divide reflects various differences among and within the countries.

299. What are the major objectives of any institutional repository?

Major objectives of any institutional repository are as follows:

1. To create global visibility for an institution's scholarly research;
2. To collect content in a single location;
3. To provide open access to institutional research output by self-archiving it;
4. To store and preserve other institutional digital assets, including unpublished or otherwise easily lost ("grey") literature (e.g. theses or technical reports)

300. Mention the types of e-journals.

Kling and Mckim (1997) distinguish e-journals into four kinds, viz.,

1. Pure Electronic Journals – Journals whose text is originally distributed only in digital form;
2. Electronic Print Journals - Journals primarily distributed electronically, but may have very limited distribution in paper form;
3. Print Electronic Journals – Journals primarily distributed in paper form, but are also distributed in electronic form;
4. Print + Electronic Journals – Journals that are initiated with parallel paper and electronic editions that may be widely distributed.

301. Mention the formats of e-journals.

The most important digital formats are: PDF and HTML. Other formats include: ASCII, Post Script, SGML, XML, RTF, Excel, MS Word, Word Perfect, Tex, La Tex, Real Page etc.

302. Mention some library consortia of developed and developing countries.

Washington Research Library Consortium (WRLC), International the Coalition of Library Consortia (ICOLC) Ohio Link, Georgia's Galileo, Virginia's VIVA, Pennsylvania Academic Consortium (PALCI) of USA; North West Academic Libraries (NOWAL) is a consortium of all libraries in the UK universities and colleges in Chesire, Cambria, Greater Manchester, Lancashire and Merseyside.

THAINET, PULINET, CALS, CBUC, GAELIC.

303. Mention some international library consortium efforts.

RUSLANet, ICOLC, EIFL.net.

304. Define RFID.

RFID stands for Radio Frequency Identification. It is an automatic identification method, relying on storing and remotely retrieving data using various devices and is driven by the radio-frequency scan technology. The acronym refers to small electronic devices that consist of a small chip and an antenna. RFID technology does not need an item within line-of-sight for identification. RFID driven system can give additional functionalities such as automatic reading, sending e-pmail communications about any event about the item.

According to Harrod's Librarian's Glossary and Reference book "RFID is an alternative to the bar code that uses tiny microchips in tags to hold and transmit detailed data about the item tagged".

305. Mention the components of RFID technology.

1. RFID tags that are electronically programmed with unique information;
2. Smart Card to interrogate the tags

3. Readers or Sensors
4. RFID Antenna
5. Security System pedastals on which the software that interfaces with the automated library system is loaded. It is also possible to distribute the software among the readers and sensors.

306. How many sections of a RFID tag and what are they?

The RFID tag has three sections: 1. Lockable section for the item identification 2. Rewritable section 3. Security

307. Mention the types of RFID tags.

RFID tags are of two types. (1) Passive (2) Active.

According to frequency RFID tags can be four types: 1. Low Frequency (125-134 KH_z) tags 2. High Frequency (13.56 MHz) tags 3. UHF (868-956 MHz) tags 4. Microwave (2.45 GHz) tags.

308. What are the benefits of RFID?

- Combines both material identification and securing into one single tag or transponder, thus saving cost and time;
- Multiple items can be read at a time, resulting speedy circulation;
- Smart labels can be attached to media, such as CDs, DVDs, print and non-print media;
- Tags are read/write, providing flexibility into encoding and decoding;
- Durable tables i.e., designed to lost life time of the item they identify.

Apart from these it would be worthwhile to mention that the technology contributes to meeting the challenges being faced by Libraries of today; mainly the security, manpower, effective and productive services, resource management, and deficient budget.

309. Mention the threats of RFID.

- Threat to staff of losing job
- Issue of privacy

- Cost prohibitive
- Removal of pasted tags
- Sensor Environment
- Limited Battery life
- Jammed networks
- Lack of standardization

310. What is ASK-A-LINGUIST Service?

The Ask-a-Linguist Website is a service to which you can submit a question dealing with language or linguistics to a panel of linguists. It is provided by The Linguist List, an Internet network for professional linguists that includes faculty members from Oxford University, the University of Arizona, and the University of Michigan. While users can submit any type of question dealing with language they choose, a section of the site provides answers to frequently asked questions, with a particularly through section devoted to Arabic. Previous questions are archived on the site, with message threads dating back to May 1997. Recent message threads on the Ask a Linguist Web site include "Origin of the Norwegian Language," "Is language innate?" and "linguistics and literature." Equally helpful is the ability to search the entire message archive in a variety of fashions, including complex queries.

http://linguistlist.org/ask-ling/index.html Eastern Michigan University

http://www.abdn.ac.uk/langling/ University of Aberdeen on language and linguistics

311. Mention the salient features of Forum for Resource Sharing in Astronomy and Astrophysics (FORSA).

- Members of the consortium are from institutes specializing in Astronomy & Astrophysics
- The journal titles are subject focused
- Better communication and understanding between the members and between the members and agent/publisher
- Savings on the additional fee for e-access, which is more for non-members

- Members are not burdened with peripheral and less important journals to their list of access, which is a standard offer of 'bundling-together' from publishers
- The model is worked out for cross e-access to the print journals subscribed by the members of the consortium and hence equal access for all the members.

312. What are the disadvantages of RFID?

Disadvantages of RFID are: 1. High cost 2. Easy to deceive the technology 3. Removal of tags 4. Exit sensor (reader) problems 5. Fear to invade user privacy 6. Reader collision 7. Tag collision 8. Lack of standard

313. Is RFID better than Bar Coding? Or, Difference between RFID and Barcode.

The big difference between the two is that bar codes are a line-of-sight technology. A scanner has to see the barcode to read it, which means that the people who scan have to position the barcode towards a scanner for it to be read. RFID tags do not need line of sight. RFID tags can be read as long as they are within range of a reader. Since bar codes are inexpensive and effective for certain tasks, it is likely that RFID and bar codes will co-exist for many years. Until now, RFID has been too expensive and too limited to be practical for many commercial applications. But if tags can be made cheaply enough, they can solve many of the problems associated with bar codes. Radio waves travel through most non-metalic materials, and can be embedded in packaging or encased in protective plastic for weather proofing and greater durability.

(i) RFID eliminates the need for line-of-sight reading that barcoding depends on;

(ii) RFID scanning can be done at greater distances than barcode scanning.

314. Mention some libraries where RFID technology used.

RFID technology has been introduced in a few Indian libraries like NASSDOC (New Delhi), University of Pune (Jayakar Library), University of Jammu (J&K), Indian Institute of Technology (Madras), Indian Institute of

Management (Indore), Indian Institute of Science (Bangalore), Indian Institute of Technology (Kharagpur), IGCAR (Kalpakkam).

315. Mention the Application of Cloud Computing in Libraries.

- Visit to libraries, focus groups and over a decade of engagement in the library automation world.
- Hosting library websites, backing up media collections, or storing and accessing bibliographic data
- Understand converged devices are everywhere (iphone)
- Allow unfettered access to the cloud (secondary drive)
- Understand that the cloud may also be a valuable information resource (via face book, blog)
- Understand the importance of personalization (OPAC)
- Libraries must transfer effort into higher value activity and embrace the web as the primary technology infrastructure

316. Mention the need of Digital Library.

The digital library offers significant and unparallel improvement and value addition to library services while providing workable solution to problems traditionally associated with the management of print-based collection in traditional libraries. Digital libraries help to fulfil the basic laws of library science as quoted by Dr. S.R.Ranganathan. In the electronic environment these laws may be restructured as *Web resources are for use*, *Every user his or her web resource, Every web resource its user, save the time of user, web is a growing organism.*

317. Mention the advantages and disadvantages of Digital Library.

The advantages of digital libraries as a means of easily and rapidly accessing books, archives and images of various types are now widely recognized by commercial interest and public bodies.

- The user of a digital library need not go to the library physically; people from all over the world can gain access to the same information as long as an Internet connection is available
- A major advantage of digital libraries is that people can gain access to the information at any time, night or day

- The same resources can be used at the same time by a number of users
- Digital libraries provide access to much richer content in a more structured manner i.e. we can easily move from the catalogue to the particular book then to a particular chapter and so on
- The user is able to use any search term (word, phrase, title, name, subject) to search entire collection. Digital libraries can provide very user-friendly interfaces, giving clickable access to its resources
- An exact copy of the original can be made any number of times without any degradation of quality
- Whereas traditional libraries are limited by storage space, digital libraries have the potential to store much more information, simple because digital information requires very little physical space to contain them. When a library has no space for extension digitization is the only solution.
- Particular digital library can provide a link to any other resources of other digital libraries very easily, thus a seamlessly integrated resource sharing can be achieved
- The cost of maintaining a digital library is lower than that of a traditional library.

Digital library has certain characteristics, which make them different from traditional library. It has expansive and accurate system of searching with large volumes of text, image and audio-video resources. Digital libraries do not need physical space to build collection and it can be accessed from anywhere, any time. Different people can access same source at the same time. The advantages of digital libraries are mentioned herein below:

- Preserve the valuable documents, rare and special collections of libraries, archives and museums;
- Provide faster access to the holding of libraries worldwide through automated catalogues;
- Help to locate both physical and digitized versions of scholarly articles and books through single interface;
- Search optimization, simultaneous searches of the Internet make possible, preparing commercial databases and library collections;
- Offering online learning environment;
- Making short the chain from author to user;

- Save preparation! Conservation cost, space and money;
- Digital technology affords multiple, simultaneous user from a single original while are not possible for materials stored in any other forms

New technology has brought many advantages but simultaneously it also has certain disadvantage.

- Costly affair
- Technology obsolescence (Hardware and Software) storage media relate
- Dominance of data creators and publishers trained manpower
- User education and training
- Security against hacking & sabotage

Advantages of the Digital Library

A digital library is not confined to a particular location or so called building it is virtually distributed all over the world. The user can get his/her information on his own computer screen by using the Internet. Actually it is a network of multimedia system, which provides Fingertip access. The spoken words or the graphical display of a digital library is again having a different impact from the words that are printed. In the new environment owing a document will not be problem for the library because the user will pay for its uses.

1. No physical boundary: The use of a digital library need not to go to the library physically, people from all over the world could gain access to the same information, as long as an Internet connection is available.
2. Round the clock availability: Digital libraries can be accessed at any time, 24 hours a day and 365 days of the year.
3. Multiple accesses: The same resources can be used at the same time by a number of users.
4. Structure approach: Digital library provides access to much richer content in a more structured manner i.e. we can easily move from the catalogue to the particular Book then to a particular chapter and soon.
5. Information retrieval: The user is able to use any search term bellowing to the word or phrase of the entire collection. Digital

library will provide very user friendly interfaces, giving clickable access to its resources.

6. Preservation and conservation: An exact copy of the original can be made any number of times without any degradation in quality.
7. Space: Whereas traditional libraries are limited by storage space, digital libraries have the potential to store much more information. Simply because digital information enquires very little physical space to contain them. When the library had no space for extension digitization is the only solution.
8. Networking: A particular digital library can provide the link to any other resources of other digital library very easily thus a seamlessly integrated resources sharing can be achieved.
9. Cost: The cost of maintaining a digital library is much lower than that of traditional library. A traditional library must spend large sums of money paying for staff, book maintains, rent, and additional books. Digital libraries do away with these fees.

Disadvantages of the Digital Library

The computer viruses, lack of standardization for digitized information, quick degrading properties of digitized materials, different display standard of digital product and its associated problem, health hazard nature of the radiation from monitor etc. makes digital libraries at times handicap.

1. Copyright: Digitization violates the copyright law as the thought content of one author can be freely transfer by other without his acknowledgement. So one difficulty to overcome for digital libraries are the way to distribute information. How does a digital library distribute information at will while protecting the copyright?
2. Speed of access: As more and more computer are connected to the Internet its speed of access reasonably decreasing. If new technology will not evolve to solve the problem then in near future Internet will be full of error messages.
3. Initial cost is high: The infrastructure cost of digital library i.e. the cost of hardware, software, leasing communication circuit is generally very high.
4. Bandwidth: Digital library will need high band for transfer of multimedia. Resources but the band width is decreasing day by day due to its over utilization.
5. Efficiency: With the much larger volume of digital information. Finding the right material for a specific task becomes increasingly difficult.

6. Environment: Digital libraries cannot reproduce the environment of a traditional library. Many people also find dreading printed material to be easier than reading material on a computer screen.
7. Preservation: Due to technological developments, a digital library can rapidly become out-of-date and its data may become inaccessible.

318. What are the components of a digital library?

Components of a digital library are: 1. Collection of infrastructure 2. Access Infrastructure 3. Computer and Network Infrastructure 4. Digital Resource Organization 5. Manpower resources.

319. What is data warehouse?

A data warehouse is the concept of data extracted from operational systems and made available as historical and snapshots for adhoc queries and scheduled reporting.

320. Mention the most important concerns for a Digital Library.

Most important concerns for a digital library are: 1. Space 2. Preservation 3. Wide range of services 4. Round the clock availability 5. Rapid and multi access 6. Networking 7. Powerful search tool 8. Cost effectiveness.

321. What is Electronic Information?

Electronic information may be broadly defined as "The information stored in a medium, which requires an electronic device to read its contents".

322. Mention the types of E-books.

E-books are of four ways: 1. Downloadable e-books e.g. Glassbooks and Gutenberg 2. Dedicated e-book readers e.g. Gemstars REBs and Franklins e-bookman 3. Print-on-demand books e.g. Columbia University online book project 4. Web-accessible e-books: on providers website & accessed for a fee e.g. Springer e-book collection

323. What are the characteristics of E-book?

A good e-book must share some of the following characteristics in common:

1. It must be portable, transferable and searchable;
2. It must provide us with annotation, audio & video files and hyperlinks
3. It must include commenting and chat tools
4. It must allow users to add links to external resources
5. It must store multiple titles in a small space

324. Mention the advantages of E–books.

The reason for e-book success, survival and facility is because of its advantages over its print counterparts. It is not only the end user who is going to be benefited, but different target group such as libraries; publisher and authors can easily examine their specific advantage.

325. What are the disadvantages of E-books?

Despite much recent media hype, there appears to be only limited take up of e-books by individuals and libraries, and the market is still ill-defined. The reason for this is its disadvantages, associated with e-books. Some of these are:

1. The issues of access, preservation, ownership, copyright and fair use, standards, cost privacy, quantity of available content and bibliographic control
2. Potential obsolescence in the viewing technology
3. Problem arises when library decides not to renew its subscriptions
4. No common access or delivery method is there and as a result libraries need to adopt several models to provide adequate services to their client
5. All are limited by lack of interoperability and available content
6. Cost of the device is regarded as a negative factor and therefore the expense of these devices is one of the major drawbacks to their widespread use
7. The issue of technical support is generally limited or non-existence

8. Lack of viable and feasible library models in terms of business prototype
9. Difficulty in identifying electronic title from publishers websites
10. Problem of bibliographic access, which is important to librarians engaged in collection management

326. What is E-Governance?

E-governance means application of the ICT tools in remodelling, redefining, recasting, repackaging the information services and products, and offering them to the mass, consequently making the government (SMART) means:

- Simple
- Moral
- Accountable
- Responsive and
- Transparent to the public

327. Mention the basics of E-Governance.

Computer hardware, software, communication devices and communication networks are the basics of an e-governance.

328. Mention the advantages of E-Governance.

E-governance offers a number of advantages for the government as well as the society. It shifts the centre of power from human agencies to technology.

The advantages of the e-governance broadly categorized into two categories:

(i) Advantages for the Public
(ii) Advantages for the Government

329. How Computer Software piracy can be protected?

The computer software can easily duplicate, download without any loss of quality and distribute through networks/Internet. It is tough to

distinguish the pirated copies from originals. These can be protected through Copyright & Patents Hardware/Software Locks/Dongles.

330. What is Library Automation?

Library automation broadly can be described as mechanization of the traditional library operation by computers, to get the required information faster than the traditional ways. The library automation is a computer based system to carry out in-house operations of the library, such as acquisition, circulation, classification, cataloguing, stocktaking etc.

331. Mention the Automated Sections of Library.

Library sections through automation likely to be emerged are:

1. Acquisition control
2. Serial control
3. Cataloguing, Classification and Indexing
4. Circulation Control
5. Information Retrieval; and
6. Managerial Applications

Automation depends totally on computers. Computer using in libraries likely

1. For supporting clerical functions associated with technical processing and circulation work
2. For information storage, retrieval and dissemination; and
3. For supporting "Management Information Services" for librarians, especially in analyzing library statistics.

In other way automated sections are:

1. Acquisition System
2. Cataloguing System
3. Classification System
4. Circulation System
5. Serial Control System
6. Article Indexing System
7. OPAC (Online Public Access Cataloguing) System
8. Web OPAC
9. Bulletin Board System

332. Mention the advantages of Automation.

The 'versatility' and 'speed' of computers offers numerous benefits, computer applications in libraries has many fold advantages.

- Routine and repetitive jobs are handled easily saving and eliminating drudgery.
- A variety of multiple outputs may be generated with a single input in automated systems. For example a database of bibliographic records can be used for, generating accession list, special purpose bibliographies, searching, querying, etc.
- Backlogs in the acquisition section/cataloguing section are fairly common. Computers can help solve this problem by improving productivity.
- It improves quality of services.
- Services like Current Awareness Services (CAS) and Specific Dissemination of Information (SDI) can be given to the users very easily.
- Instantaneous answers to multiple queries.
- Decreasing costs, versatility and stupendous processing power of computers have made automation very cost effective.

333. Mention some library management software.

- DELSIS, DEL-DOS, DEL-WINDOWS developed by DELNET (Delhi Library Network), New Delhi
- SANJOY, SUCHIKA developed by DESIDOC (Defence Scientific Information and Documentation Centre), New Delhi
- GRANTHALAYA developed by NISCAIR (Formerly INSDOC)
- LIBSYS developed by Libsys Corporation, New Delhi
- MAITRAYEE developed for CALIBNET
- SOUL developed by INFLIBNET
- CDS/ISIS, WINISIS, OPENISIS developed by UNESCO

334. Mention the example of virtual reference service?

Ready reference links and subject bibliographies are examples of typical web-based services offered in the reference area. This is consistent

with the use of the web as an information resource. Reference question/answer service, either via web form or via email, is also a frequently offered service.

335. Why we go for Networking?

A look at the various advantages of networking will provide and answer to the question "why" of networks:

- Resource Sharing: Data information is available to anyone on the network irrespective of the physical location of the resource and the user.
- Security: Using the security resources of a networking, software can be safeguarded by installing passwords, paper user rights and file attributes. Software and data can be backed up from a single location with minimal effort.
- Reliability: High reliability is achieved by giving alternative sources of supply i.e. ability to continue operating in the face of hardware/software problems.
- Distributed Data Management: (The data can be managed at server itself). Data can be centralized at the server instead of managing it at individual terminals, so that each user can access the relevant data to serve this purpose, thereby increasing the speed of the task.
- Versatility: LAN is flexible in the aspects of cost effectiveness, easy maintenance and upgradation, and provides internal communication.

336. Mention the skills required to fulfil the changing of libraries.

1. Library and information handling skills
2. Service Orientation
3. ICT knowledge skills
4. Communication and training skills
5. Marketing and presentation skills
6. Understanding of cultural diversity
7. Knowledge mapping skills

337. Meaning of Knowledge Society.

In the knowledge society, the term "knowledge" implies a resource that is richer, more structured, more organised, more complex and more qualitative than the term "information".

338. Mention the agents of knowledge creation.

In the knowledge society, knowledge is created by a variety of agents as enumerated below:

- Social groups and individuals;
- Social workers;
- Social movements;
- Human actions, especially by getting awareness through learning;
- Individuals and organizations;
- Faculty and students by teaching the tools of academic enquiry;
- Experts in various disciplines;
- Researchers, centres of learning and research centres/laboratories;
- Multidisciplinary project teams;
- Scientists and Technologists;
- Disseminators and Users;
- Indigenous Craftsmen etc.
- Business executives, private sector firms producing explicit and implicit knowledge for sale;
- Domain experts;
- Software interfaces that unearth knowledge without explicit and implicit knowledge extraction from textual documents in electronic form; and
- Learners who use knowledge bases to create new knowledge, etc.

  The knowledge so created need to be disseminated to the needy users' community for proper utilization.

339. Mention the utilization of knowledge for societal development.

The created knowledge in the society is disseminated to use for the overall development of the society. In fact, knowledge is a basic tool for development, as it:

- Makes communities sustain themselves from generation to generation and let civilizations grow;

- Induces production;
- Promotes social change and economic growth;
- Gives birth to more knowledge when we study it further through research or in education, Science and technology;
- Makes individuals expand their sphere of influence in any discipline in which they are specializing and family;
- Brings all round development in the society.

340. Mention the characteristics of a good class.

Mina defines 'a good class' as:

1. A 'good' instructor with the right attitude
2. 'Good' students with the right attitude
3. A good synergy for the whole class

341. Mention the characteristics of a 'Good Professor'.

1. Ability to stimulate intellectual curiosity
2. Develops thought processes
3. Preparation and organization of lessons
4. Attention to student feedback
5. Develops motivation
6. Research ability
7. Knowledge of material
8. Interesting presentation of material
9. Lucid expression of ideas
10. Friendly approach
11. Willingness to help
12. Fluency of speech
13. Sense of humour
14. External appearance
15. Flexibility

342. Mention the procedures for preparation of 'Good Professor'.

The universities in developing countries lack resources of those of the West. They need to develop a one-year post-induction training

programme for all new recruits. Such a programme could include the following areas of study:

a) Curriculum design
b) Teaching methodology
c) Preparation of teaching materials
d) Student evaluation
e) Educational management

343. Mention the procedures for development of a 'Good Professor'.

a) Continuous Professional Development (CPD)
b) Formal Mentoring

344. Mention the concept of Information Age.

Information Age: The period beginning around 1990 & noted for the abundant publication, consumption & manipulation of information especially by computers & computer networks.

345. Mention the concept of Digital Age.

Digital Age: Refers to bringing compression & other processing enhancement of information or anything connected with communication among others.

346. Mention some changes occurred in this ICT age.

1. Web interfacing of traditional searchers
2. Imaging
3. Digital environment
4. RFID technology

347. Mention the year of origin of the following.

Lotka's law – 1926. Bradford's law – 1934, Zipf's law – 1949. Science Citation Index- 1955. Co-citation measurement (Small) – 1973. Bibliographic coupling (Kessler) – 1963. Netometrics (Bossy) – 1995. Webometry (Abraham) – 1996. Internetometrics (Almind & Ingwersen) –

1996. Webometrics (Almind & Ingwersen) – 1997. Cybermetrics (Isidro Aguillo) – 1997. Web bibliometry (Chakrabarti) – 2002. Kano Model (Von Dran) – 1999 (directly deals with understanding the customer needs).

348. Define Librarianship.

Definition 1: Librarianship is the discipline and profession that is concerned with helping individuals obtain reliable information to increase their knowledge in all spheres of their lives from the cumulated information store of mankind.

Definition 2: Librarianship is a bridge between two entities; people and information. Librarians consider who may need this bridge, when and where a bridge is needed, how it is to be built, how it can be best utilized. We are the planner, architect, builder, and marketer of bridges.

349. Define Reference Desks.

Earlier, reference librarian was available in person, or on phone. Because of the Web, virtual reference librarian is available via e-mail or through a Web form for providing reference services to the users. Many find that this facility is highly useful as it replaces the rigidity of sticking to timings for person-to-person contact.

350. Define E-Newsletter.

E-Newsletter is the communicating the news of the library to its users of both physical and virtual collections in electronic format.

351. Mention the role of Librarian in Internet age.

- Librarian as an intermediary search
- Librarian as facilitator
- Librarian as end-user trainer/educator
- Librarian as web site builder or publisher
- Librarian as researcher
- Librarian as interface designer
- Librarian as knowledge manager/professional
- Librarian as sifter of information resources

352. Mention the role of digital library in Internet age.

- Preservation
- Data conversion
- Upgrade current technical architectures
- Copyright and Intellectual Property Rights (IPR)

353. Mention the features of Internet.

The most fundamental and powerful features of the Internet and World Wide Web influencing Libraries & Library Professionals are:

1. Easy connectivity through ordinary personal computers and local phone numbers;
2. Provides facility to exchange electronic mail with the accounts on the Internet;
3. Allow publishing and making frequent updates to on-line documents, and receive direct feedback on those documents via E-mail;
4. Connect with a diverse, global audience, a community defined not by geography, but by interests;
5. Keeps you abreast of the latest news and developments in your profession;
6. Reference other Web resources easily via hypertext;
7. Provides access to otherwise obscure information not readily available in other media;
8. Allow to download useful software and documents at little or no cost;
9. Support to distribute information in a number of different sites all over the Internet;
10. One can access multimedia information that includes sound, photographic images and even video;
11. It is changing the way people access information, and opening new possibilities in areas such as digital libraries, virtual libraries, scientific information retrieval and dissemination, education, commerce, entertainment, government and health care.

354. Mention the ways of survival of library and librarian in the digital age.

Despite the perceived obsoleteness in the digital age both libraries and librarians are irreplaceable for following reasons:

- Not everything is available on the Internet
- Digital libraries are not the Internet
- The Internet isn't free
- The Internet complements libraries, but it doesn't replace them
- Libraries aren't just books
- Like businesses, digital libraries still need human staffing
- Eliminating libraries would cut short an important process of cultural evolution
- The Internet is a mess, can be hard to isolate concise information on the Internet
- Not everyone has access to the Internet
- The paper based library will coexist with the digital library

355. Mention the change factors for the transition from traditional to digital library.

Many libraries are in transit from the transit from the traditional towards the digital library. The change factors can be summarised as follows:

- Geometric increase in quantity of information
- Greater access to information sources on/via the web/Internet
- Increased speed in acquiring and disseminating information
- Constantly evolving IT (both hardware and software)
- Need for bigger financial investments to acquire electronic resources
- Information world is undergoing transition from Library-centred to an information centred entity
- Shift from a paper based environment to a predominantly digital interface using search engines, databases, data mining etc.
- Transformation of library from an institution to the library as an information provider with technical skills specialists functioning in an automated environment
- Need for collaborations with different type of institutions, information professional and many others

- Moving from the concept of acquisition to the concept of access i.e. instead of purchasing information sources, licenses for access are paid for
- Awareness about intellectual property rights and judicious use of copyrighted material

356. Mention the high risk areas in committing banking frauds.

i. Opening of the fictitious accounts (savings and current account) to misappropriate funds from stolen and forged cheques, drafts, dividend, warrants etc.
ii. Misappropriation of cash by fudging accounts.
iii. Withdrawals from deposit accounts through forged instruments.
iv. Targeting in operative/dormant accounts
v. Misuse of 'Loose-leaf cheque'/withdrawal forms
vi. Cheating in foreign exchange transactions by transmitting forged/fake inward remittances
vii. Misutilization of credit facilities through diversion/misuse/siphoning off/decamping etc.
viii. Impersonation/submission of fake documents etc. for obtaining credit facilities/loans
ix. Use of inter back clearing for accommodation kite-flying and misappropriation.
x. Raising loans against fake jewellery/forged better to property, house loans, personal loans, vehicle loans etc.
xi. Misutilizing/committing frauds through credit cards
xii. Fraud in collusion with bank staff
xiii. Hacking in collection of cheque/drafts
xiv. Inter branch inward/outward remittances

357. Mention the measures to prevent frauds through cheques.

For preventing frauds through cheques, the following measures are suggested:

i. Ensuring physical safety/features of the cheque through improved water mask, void pantographs, chemical voids, high-resolution micro-printing, reflective holograms, better security ink and above all better security paper

ii. Timely reconciliation of books of accounts, balancing of accounts at irregular intervals
iii. Proper custody of cheque books and duplicate/scanned specimen signatures
iv. Creating awareness amongst customers to switch over to debit cards, EFT, ECS, NEFT, RTGS, AWB, CBS, SFMS, cheque truncation
v. Proper and quick reporting of loss of cheque books and any discrepancies in accounts
vi. Exclusive use of innovative technologies like ultra violet imaging, two dimensional barcodes, Data Glyphs (a technology developed by Xerox Corporation to encode text, numbers, graphics etc.) biometric technology, cheque, image processing, data mining, using cheque writer and processing software, covering all cheque books under MICR, creating awareness amongst employees and taking stringent/strict action against fraudulent employee and also by encouraging employees to be "whistle blower".

358. Why a Data Warehouse is needed in Digital Environment?

i. The first is locked inside the corporate data; there are valuable patterns of information which are very important in guiding the business.
ii. The second is that this information will form the basis of unique services to customers, discovering new trends, predicting outcomes in a manner that will transform the understanding which the company may have of the market.
iii. The third is the shortening of the distance between the identification of strategy and the execution of strategy.
This will progressively transform the understanding which the company may have of its own organizational structure. Through the developments in hardware and software it now is possible to create the IT-architecture (the Data warehouse) which can handle the huge amount of data.

359. Mention the fundamental stages of Data Warehouse.

a) Off line Operational Databases
b) Off line Data Warehouse

c) Real time Data Warehouse
d) Integrated Data Warehouse

360. Mention the key concepts of Data Warehouse.

a) Operational/Informational Data
b) Online Analytical Processing/Multi-dimensional Analysis
c) Data Marts
d) Metadata/Informational Catalogue
e) Data Mining

361. Mention the design methodologies of Data Warehouse.

There are mainly two design methodologies:
a) Rapid Prototyping (for small to medium projects) and
b) Structured Development (for large or very complex projects)

362. What are the steps involved in Data Warehouse?

The creation and management of data has the following "steps" in the data warehouse process:
1) Warehouse model
2) Source definitions
3) Table definitions
4) Source-to-target maps
5) Map and transformation information
6) Physical information (table spaces, etc.)
7) Extracted data
8) Transformed data
9) Load statistics
10) Business descriptions
11) Query requests
12) The data itself
13) Query statistics

363. Mention the application of Data Warehouse.

<u>A well designed and implemented data warehouse can be used to</u>:

- Understand business trends and make better forecasting decisions
- Bring better products to market in a more timely manner
- Analyze daily sales information and make quick decisions that can significantly affect your company's performance
- Sales and marketing analysis across all industries
- Inventory turn and product tracking in manufacturing
- Category management, vendor analysis, and marketing programme effectiveness analysis in retail
- Profitable lane or driver risk analysis in transportation
- Profitability analysis or risk assessment in banking
- Claims analysis or fraud detection in insurance

364. Mention the advantages of Data Warehouse.

The data warehouse addresses these factors and provides many advantages to the end-users of the Colleges, University, business organizations including:

- Improved end-user access to a wide variety of University data
- Increased data consistency
- Additional documentation of the data
- Potentially lower computing costs and increased productivity
- Providing a place to combine related data from separate sources
- Creation of a computing infrastructure that can support changes in computer systems and business structures
- Empowering end users to perform any level of adhoc queries or reports without impacting the performance of the operational systems
- Data warehouses are designed to perform well with aggregate queries running on large amounts of data
- The structure of data warehouses is easier for end users to navigate, understand and query against unlike the relational databases primarily designed to handle lots of transactions

365. Mention the disadvantages of Data Warehouse.

The main problem addressed by a data warehouse is that end-users have a difficult time producing adhoc or other specialized queries and reports. This is due to several factors:

- Most of the data is stored in ADABAS, which is difficult for end-users to access
- The data stores were designed for transaction processing not adhoc reporting
- Obtaining the data or a report usually requires waiting for a programmer to either develop the report or provide a customized download programme
- All of the data may not be consistent as of the same point in time
- There may not be enough copies of the data kept for historical reporting in the operational systems
- End-users do not have the knowledge of what is kept in the existing data stores
- Before data can be stored within the warehouse, it must be cleaned, loaded, or extracted. This is a process that can take a long period of time. There may also be issues with compatibility.
- It is difficult to maintain. Any organization that is considering using a data warehouse must decide if the benefits outweigh the costs. Once you have paid for the data warehouse, you will still need to pay for the cost of maintenance over time.

366. Mention the Digital Preservation Method.

1. Change Media (Create hard copy of digital resource ⟶ Nullifies integrity concerns; long life expectancy);
2. Emulation or Encapsulation (Emulate preservation metadata to detail hardware and software requirements of preserved data⟶ Do not lose original functionally because future technology 'mimics' old technology)
3. Migration or Refreshing (Transfer preserved resources to new generation technology ⟶Most common practice, nullifies life expectance concerns)
4. Mirroring or Redundancy (Keep an exact copy of an archive in geographically diverse locations ⟶ Can be used to back-up large databases)
5. Technology Preservation (Preserving hardware and software used to create and access information (i.e. reel-to-reel film and eight track tape machines)⟶ May preserve data only and be assured to have the ability to read it)

367. Mention the characteristics of Digital Library.

- To overcome the geographical boundaries to access the information resources
- To improve library operation
- To enhance advanced search, access and retrieval of information
- To support varies library functions
- To provide network facilities
- To provide user friendly interface
- Data can be access by all type of uses at all level retrieving all kind of information
- Information is provided in a large amount than it possible to physically acquired and maintained as compares to traditional library
- One copy of document could be viewed by many number of person simultaneously

368. Mention the necessary issues of Digital Library.

a) Staff Development
b) Equipment and Software
c) Licenses
d) Technological Adoption
e) Financial Issues
f) Personal Issues
g) Organizational Issues
h) Technophobia

369. Mention the purpose of Digital Library System.

1. To contributing to the lifelong learning opportunities
2. To encourage cooperation among libraries
3. To promote the economical and efficient delivery of information
4. To develop the means to collect, store and organize information and knowledge in digital form
5. To strengthen communication and collaboration between and among the research, and educational communities

6. Provide download and printing facilities
7. Helps in reduction of procurement of multiple copies of text books
8. Provide access to rare books
9. Provide easy and fast access to information irrespective of time and location
10. Digital library have lot of storage capacity

370. Mention the difference between Traditional Library and Digital Library.

Traditional Library	Digital Library
Documents are found on stacks and shelf list.	Data are found in digital form in hard disk, floppy, CD-ROMs.
Main purpose is collection development.	In Digital Library data is captured on-line.
Documents are issued on loan	We just access the information for IT tools
Information is located at one place	There is no need to visit any particular place. We can access from any access point
It emphasizes on the storage and preservation of physical items	It emphasizes on access to digitized materials

371. Mention the requirements for Digital Library Building.

Some of the requirements for a digital library are:

1. Audio Visual: Colour T.V., DVD, Sound Box, Telephone etc.
2. Computer: Server, P.C. with multimedia etc.
3. Network: LAN, MAN, WAN, Internet etc.
4. Printer: Laser printer, Dot Matrix, Barcode printer, Digital Graphic printer etc.
5. Scanner: H.P. Scanjet, Flatbed, Sheet Feeder, Drum Scanner
6. Microfilming Scanner, Digital Camera, Barcode Scanner etc.
7. Storage Device: Optical storage device, CD-ROM, Jukebox etc.
8. Software: Any suitable software, which is interconnected and suitable for LAN and WAN connection.

372. Mention the subject coverage of renowned publishers in E-book publication.

Sl. No.	Publisher	Subject covered
1	Elsevier	Science, Technology and Medical (STM)
2	Wiley Interscience online books	STM, Business and Finance
3	Taylor and Francis	Social Science, Sciences and Humanities
4	Cambridge University Press	Humanities
5	PAN American Health Organization (PAHO) electronic collection	Public Health
6	Knovel library	Applied Sciences
7	E-book library & net library	Education, Psychology and Sociology
8	Questia	Humanities and Social Sciences
9	ICFAI University Press	Management (Case Studies)
10	Springer e-book collection	STM, Biomedical, Life Sciences and Computer Sciences

373. Mention the implication of E-books on teaching and learning.

1. It facilitates the teaching of composition, writing and editing
2. It increases student engagement and deepen their understanding of subject matter
3. Due to the use of multimedia components, it can increase student facility with a variety of ways of looking at certain concepts
4. It can bring more and more focused, content to classrooms
5. It provide an avenue for exposure to students

374. Mention the procedures for E-books collection development in the library.

To achieve the e-book platform the following procedures should be maintained:

1. Negotiation on license terms must be made
2. Appropriate pricing schemes must be developed

3. Libraries must ensure that copies of works must be incorporated in permanent collection for continued access
4. Libraries may order customized, full or fixed-subject collections based on the requirement of the organization
5. There must be a provision of generous discount for multiple online library purchases and for consortia
6. The library must customize their e-book collection by selecting a minimum number of titles from the total titles available with the publishers
7. Library must ensure that as the collection grows, the subscription price will remain the same
8. Publishers should give the opportunity to libraries, to review title usage and swap out titles, which are no longer in need
9. Library must get the flexibility to build their collection on a title-by-title basis
10. Publishers must sell site license at prices closer to their actual cost, or resort to selling electronic access to individuals on pay-per-view basis

375. Mention the status of the Government initiatives taken towards E-Governance.

E-governance has been successfully implemented and functioning in some states i.e. Karnataka, Andhra Pradesh, Tamil Nadu, Chhattisgarh, Delhi, Maharashtra, Gujarat, Haryana, Punjab, West Bengal, Uttar Pradesh, Kerala etc. and almost all central governments, educational institutions, libraries and information centres, banking, research institutions, research councils and even local bodies, i.e. districts, taluka, municipal corporations, etc.

376. Mention some central and state government E-Governance projects in India.

Some Central Government Initiatives:

1. National Informatics Centre (NIC) http://www.nic.in [web portal: http://godirectory.nic.in

2. Sampark [This software freely downloads from www.incometaxindia.gov.in and used for preparing returns of income tax]

Some State Level Initiatives:

1. The Bhoomi project (Karnataka)
2. The Sarita project and SETU (Maharashtra)
3. The E-Seva Centres (Andhra Pradesh)
4. Gyandoot (Madhya Pradesh)

Local Level Initiatives

MCD Online (Municipal Corporation of Delhi)

377. Mention the different stages of E-Government development.

1. Cataloguing – is the first stage and it is very simple. In this stage, administration website is created.
2. Transaction – In this stage citizens can perform transactions such as online payment of taxes, electricity and telephone bill, and renewal of licenses and passport.
3. Vertical Integration – The aim of this stage is to integrate the central and local systems within similar functionalities for cross referencing and checking.
4. Horizontal Integration – This stage of e-government will facilitate "one stop shopping" for the citizen. The system is horizontally integrated across different functional official work of the citizens like issue of certificate, permits, authentication, affidavit and other services are provided at only one place.

378. Mention the technical issues in E-Governance.

1. Interoperability
2. Privacy
3. Security
4. Authentication

379. Mention the economic issues in E-Governance.

1. Costs
2. Maintainability

3. Reusability
4. Portability

380. Mention the social issues in E-Governance.

1. Accessibility
2. Usability
3. Acceptance
4. Use of local languages
5. Awareness in rural areas

381. Mention the strategies for E-Governance implementation.

Some important strategies are highlighted as:

- Organizing national summits and seminars at various levels frequently
- Raising awareness among leaders to increase the political acceptability since the self interests of leaders and stakeholders cause slow progress
- Making e-governance compulsory in each ministry to reduce the paper work and to increase the productivity
- Making special acts for accountability law, law for privacy, freedom for information act, and standards for electronic publishing, e-mails etc.
- Building e-governance training for all government employees and civil society leaders.
- Introducing e-governance as basic education at school levels
- Making e-governance as qualifying subject for the recruitment of employees
- Building infrastructure for e-governance in rural and backward areas of the country at panchayat level
- To study the government systems carefully for Government Process Reengineering (GPR)
- Building e-governance pilot projects
- Continuous evaluation of e-governance projects
- Policy making for global operability and networking national networks with global networks
- Marketing and promotion to popularize e-governance

382. What is E-Marketing?

E-marketing is essentially utilizing the technology tools that are available to increase the information exchange, to customize marketing messages and maintain strong customer relationship.

383. What is Ontology? Why it is so popular?

Ontologies are an essential backbone technology because they interweave formal semantics understandable by a computer with real world semantic understandable to humans. Ontologies were developed in Artificial Intelligence to facilitate knowledge sharing and reuse. More recently, the notion of ontology is also becoming widespread in fields such as intelligent information integration, cooperative information systems, information retrieval, electronic commerce, and knowledge management (Ying, 2002).

The reason ontologies are becoming so popular due to what they promise: a shared and common understanding of some domain that can be communicated between people and application systems.

Ontology is a formal, explicit specification of a shared conceptualization. A '*conceptualization*' refers to an abstract model of some phenomenon in the world which identifies the relevant concepts of that phenomenon. 'Explicit' means that the type of concepts used and the constraints on their use are explicitly defined. '*Formal*' refers to the fact that the ontology should be machine understandable. 'Shared' reflects the notion that an ontology captures consensual knowledge, that is, it is not restricted to some individual, but accepted by a group.

RDF Schema is quite simple compared to full-fledged knowledge representation languages. To be able to specify the meaning of data more precisely, richer languages are necessary.

384. What Do We Market?

- Library services (Lending, Reference, CAS, SDI etc.)
- Resources (Collection of books, AV Material, e-journals, databases, etc.)

- Expertise (especially info searching and repackaging skills), database searching etc.
- Outreach activities like Book exhibitions, book talks

385. Mention the Strategies of E-Marketing.

E-marketing techniques are evolving as rapidly as new technologies are developed. Corporate libraries apply these marketing principles which will be divided into three major types:

- Awareness building
- Branding
- Outreach

386. What are the Benefits of E-Marketing?

- Effective use of electronic messages
- Increased expectations of customers

387. What is Embedded System?

The Embedded Systems involves the simultaneous design of the hardware and the software component of the system. It is important to partition the desired system into hardware subsystem and the software subsystem such that the system synthesized is optimal in its costs.

388. Mention the different formats in television sets.

1. HDTV (High Definition Television) [Plasma, LED and LCD TV – 1280*720 pixels and above]
2. UHDTV (Ultra High Definition Television)
3. Laser Television
4. Hologram Television

389. Mention the different delivery format in television.

<u>Some important delivery formats are</u>:

- Cable network
- DTH (Direct to Home)
- DTT (Digital Terrestrial Television)

- IPTV (Internet Protocol Television)

390. Write about UGC-Infonet.

The UGC-Infonet E-Journal consortium (http://unicat.inflibnet.ac.in/econ/mindex.htm) in the field of education and research was initiated in 2003. It is a gateway to scholarly information available globally. The programme is wholly funded by the University Grants Commission (UGC) and monitored by INFLIBNET (Information and Library Network) Centre, Ahmedabad (Gujarat). INFLIBNET Centre is an Autonomous Inter University Centre (IUC) of UGC involved in creating infrastructure for sharing of library and information resources and services among Academic and Research Institutions. INFLIBNET works collaboratively with Indian university libraries to shape the future of the academic libraries in the evolving information environment.

Under the consortium, about 4453+ full text scholarly electronic journals besides indexing and abstracting database and gateway portals from 25 publishers across the globe can be accessed. The whole programme has been implemented in different phases. So far 100 Universities out of 171 Indian Universities, which come under the purview of UGC, have been provided access to these journals and it will gradually be extended to affiliated colleges as well.

391. Mention the Application of Social Networks in Libraries.

- Libraries can create a page to reach to new users
- Social networking could enable librarians and patrons not only to interact, but to share and change resources dynamically in an electronic medium
- For building network among the interested group in discussing the common interest
- User content can be added to the library catalogue, including users book reviews or other comments

392. Mention the disadvantages of Library Consortium.

The drawbacks of library consortium formation are as follows:

- Absence of printed copy of books/journals
- Require training of staff in handling electronic documents etc.

- Consortia require high initial investments in licensees and information and communication technology
- Copyright problems
- Unreliable telecommunication links and insufficient bandwidth
- Lack of archiving and back files availability
- Internet Access ID is necessary
- Users are not accepting e-journals as per with the printed journals

393. Mention the advantages of Library Consortium.

- Consortium based subscription to electronic resources provides access to wider number of electronic resources at substantially lower cost
- Optimum utilization of funds
- Facilities to build up digital libraries
- Helpful to provide better library services like CAS and SDI
- Cost sharing for technical and training support
- Electronic journals demand neither library space nor shelving costs nor can they be stolen from the library
- The consortium have been offered better terms of licenses for use, archival access and preservation of subscribed electronic resources, which would not have been possible for any single institution; and
- Available 24 hours a day, 7 days a week
- Economy in maintenance

394. Mention the benefits of Consortium.

- Quality of service is enhanced
- Cost of service is reduced
- Duplication of stock is minimized
- More information is available with less payment
- Scope for electronic archives
- Availability and monitoring of usage statistics
- Getting deep discounts through joint pricing negotiations – hence lower unit cost of information

- Can be read anywhere in the world, at any time, by any number of people as long as the readers have an Internet connection
- Also allow the inclusion of audio-visual material as well as the other formats and technological innovations that are available on the Internet, such as keyword searching; articles include links to other cited journals, e-books, and other supporting material making research more convenient
- Reduced storage costs
- Developing common resources databases
- Effective document delivery systems
- A single interface and access point
- Enhanced search facilities
- Better scope for developing a union catalogue among participating libraries

395. Write about Push Technology.

Information, web sites and applications can be sent via the Internet straight to people's computers with a variety of technologies collectively known as push. Push technology, also called server push or webcasting, describes an Internet-based content delivery system where information is delivered from a central server to a client computer based upon a predefined set of request parameters outlined by the client computer. In other words, Push Technology is the software that automates the delivery of information to individuals.

396. Write about Wireless Technology.

Wireless technology is very fast, reliable and highly flexible. Its major benefit is the immediate access to digital resources. It enables users to simply and easily connect a wide range of computing and telecommunications devices without the need to buy, carry, or connect cables. It uses a variety of devices such as laptop and notebook computer, tablets, and personal digital assistants (PDAs), e-mail only devices, handheld computers, etc.

397. What is Bluetooth?

Bluetooth is an industrial specification for wireless personal area networks (PANs). Bluetooth provides a way to connect and exchange information between devices such as mobile phones, laptops, PCs, printers, digital cameras, and video game consoles over a secure, globally unlicensed short-range radio frequency. The Bluetooth specifications are developed and licensed by the Bluetooth Special Interest Group. Bluetooth is a radio standard and communications protocol primarily designed for low power consumption, with a short range (power class dependent; 1 metre, 10 metres, 100 metres) based on low cost transceiver microchips in each device.

398. Write about Wireless Networking and its benefits.

Wireless networking help users to access digital information without connecting physically, and system administrators can set up or extend networks without installing wires. Mobility is the most attractive feature of wireless networking. It is more flexible than wire networking. It provides all the functionality of wired networking, without the physical constraints of the wire. Wire networking will allow users with devices like laptops, notebooks, PDAs, Tablet PCs etc to move freely in the library while remaining connected to the library network. Following are the benefits of wireless networking in libraries:

1. A library wireless network provides access to multiple computers, databases, the Internet and library OPAC throughout the library or outside the library;
2. It provides faster access to information for library users, resulting in better service and improved user satisfaction. Location independent access for network administrators for easier on-site-trouble-shooting and support;
3. Using laptop computers library users can access electronic media and also be physically near whatever printed material they want;
4. Sharing of peripherals, files, multimedia resources and databases are easier;
5. Improved database access;
6. Simplified network configuration;
7. Wireless networking permits quick connectivity to the network

399. Write on Wireless Application Protocols (WAP)

Wireless Application Protocol or WAP is an open international standard for applications that use wireless communication. Its principal application is to enable access to the Internet from a mobile phone or PDA. A WAP browser is to provide all of the basic services of a computer based web browser but simplified to operate within the restrictions of a mobile phone. WAP is now the protocol used for the majority of the world's mobile Internet sites, known as WAP sites. Websites should be written in specially designed Wireless Markup Language (WML).

400. Write about General Packet Radio Service (GPRS).

The General Packet Radio Service is a service that allows mobile phones to be used for sending and receiving data over an Internet Protocol based network. GPRS enables wireless access to Internet, enabling users to access E-mail and other Internet applications using mobile phones.

401. Write on Universal Mobile Telecommunications System (UMTS).

Universal Mobile telecommunications System uses ATM based switching network architecture. UMTS aims to provide services for mobile and fixed subscribers by common call processing procedures. It will provide at least 144 kbps for full mobility, 384 kbps for limited and 2048 mbps for low mobility applications.

402. What is Artificial Intelligence?

Artificial Intelligence is the science and engineering of making intelligent machines, especially intelligent computer programmes. It is 'concerned with the study and creation of computer systems that exhibit some form of intelligence system that learn new concepts and tasks, systems that can reason and draw useful conclusions about the world around us, systems that can understand a natural language or perceive and comprehend a visual scene, and systems that perform other types of feats that require human types of intelligence.

403. Write about Expert Systems.

Expert Systems are meant to solve real problems, which normally would require a specialised human expert. Building an expert system first involves extracting the relevant knowledge from the human expert. The application of expert systems in LIS field in the following areas:

1. Intelligent interfaces, in particular interfaces for online information retrieval systems;
2. Subject analysis and representation, including classification, indexing and abstracting services;
3. Information storage and retrieval systems in general;
4. References and referral systems;
5. Hypertext and hypermedia;
6. Collection development

404. Write on Smart Card.

A smart card, chip card, or integrated circuit (s) card (ICC), is identified as any pocket sized card with embedded integrated circuits which can process information. This implies that it can receive input which is processed – by way of the ICC applications and delivered as an output.

The term smart card refers to identification cards that do not need to make contact with the readers to be read. The capability is implemented using a tiny RFID in the card. By using such type of cards the check-in and check-out functions becomes easy, accurate and convenient to the research scholars/library readers. User identification can be easily done through smart card.

405. What are the key elements for a robust Security Strategy?

According to T. A. Finne there are five key elements for a robust security strategy. They are:

1. Policies: Clear security policies that should be consistent with the business objective of the organization, security policy should be drafted and it should be disseminated to all the employees of the organization.
2. Plans: After making the security policy, the methodology to implement it should be clearly worked out. Security infrastructure

should be designed in order to protect and support all resources in the network including Wireless LAN devices.

3. Products: Key technologies, products and services required to execute the plan and meet the security objective of the organization should be identified. It should be deployed in such a way that it should provide the appropriate levels of security, performance, scalability and quality of service.
4. Processes: deployment of security technologies must be supported by continuous monitoring, testing and adaptation of the network.
5. People: Skilled security administrators should manage this continuous plan, products and processes.

406. Mention the stages of Risk Management.

Risk management is consisting of four stages:

1. Risk Assessment
2. Implementing Policies
3. Promoting Awareness
4. Monitoring and Evaluation

407. Mention the elements of Risk Assessments.

All risk assessments generally include the following elements:

- Identifying threats that could harm, and thus, adversely affect critical operations and assets.
- Estimating the likelihood that such threats will materialize based on historical information and/or the judgement of knowledgeable individuals.
- Identifying and ranking the value, sensitivity, and critically of the operations and assets that could be affected.
- Estimating the potential losses or damages including recovery costs.
- Identifying cost-effective actions to mitigate risk, which includes information security policies as well as technical and physical controls.

408. Mention the challenges associated with Information Security Risk Assessment.

1. Data are limited on risk factors, such as the likelihood of a sophisticated hacker attack and the costs of damages, loss, or disruption caused by events that exploit security weaknesses.
2. Some costs such as loss of consumer confidence are difficult to measure.
3. Although the costs of the hardware and software needed to strengthen controls may be known, it is often not possible to precisely estimate related indirect costs, such as the possible loss of productivity that may result when new controls are implemented.
4. Even if precise information is available, it would soon be out of date due to fast paced changes in technology and factors such as improvements in tools available to would be intruders.

409. Mention the Risk Assessment Tools.

There are wide varieties of risk assessment tools available in the industry for conducting a risk assessment. Most of the tools are relatively simple aids to assessment and reporting.

1. Risk Assessment Matrix
2. Questionnaire
3. Expert Systems
4. Data Gathering Phase
5. Analysis Phase

410. What is Moodle?

Open source systems freely available to download and adapt to suit the specific needs of an institution. Moodle (www.moodle.org/) is an example of a popular open source environment that is becoming increasingly widely adopted. Moodle integrates pedagogical features missing in many LMS tools, allowing instructors to construct the customizable, online courses or a wide range of course module s on a flexible platform.

411. Mention some Open Source Learning Management System (LMS) tools.

(i) Moodle (http://www.moodle.org/). Compatibility: Linux, UNIX, Windows, Mac OS X, Free BSD and any other system that supports PHP. Usage: Downloaded about 500 times a day. More than 28000 registered sites, over a million courses, a learning community of 10 million.
(ii) Bodington (http://www.bodington.org/). Compatibility: Shibboleth, Linux, Microsoft, Mac OS X, or UNIX. Usage: Implemented at University of Leeds, UHI Millennium Institute, and University of Oxford. Provides services to 15,000 users with a single server.
(iii) Claroline (http://www.claroline.net/). Compatibility: Microsoft, Linux/GNU, Mac OS X; compiles with SCORM and IMS/QTI. Usage: Available in 35 languages and had users in more than 80 countries.
(iv) ATutor (http://www.atutor.cal/). Compiles with W3C WCAG 1.0 and W3C XHTML 1.0; support content developed in IMS or SCORM.
(v) Sakai (http://www.sakaiproject.org/). Compatibility: Complements commercial software like WebCT, Blackboard, ANGEL Learning, and Desire2Learn.

412. What is Multiplexing?

Multiplexing is the process of combining the transmission, character by character, from several devices, into a single data stream that can be transmitted over a single communication channel. A multiplexer is a device that produces multiplexing. It is also used at the receiving end to separate the transmissions and send them back in their original order for processing. A multiplexer allows the communication channels to transmit much more data, at any one time, then what a single device can send. Multiplexers are more efficient and less expensive.

413. Mention the Methods of Multiplexing?

<u>The following methods are used by multiplexers</u>:
(a) <u>Frequency Division Multiplexing (FDM)</u>
This method of multiplexing uses separate frequencies to establish multiple channels within a broad band medium. To do this the multiplexer creates special broad band carrier signals that operate on different frequencies. Data signals are added to the carrier signals and are removed, at the opposite end of the media segment by another multiplexer. This method is used in broad band local area networks (LANs) to separate

different directions the traffic on the cable and to provide special services like dedicated connections between machines.

(b) Time Division Multiplexing (TDM)

This system divides a single channel into short time slots. Bits, blocks of bits, bytes or frames can be placed into each time interval. Time division is a multiplexing technique that you can use on base band systems. We can also use it on an individual channel of a broad band FDM system. Conventional TDM systems are sometimes called synchronous TDM because the time-divisions are fixed when the multiplexers are set up. The time slots are always the same length and are assigned in the same order.

(c) Statistical Time Division Multiplexing (STDM)

Conventional synchronous TDM systems waste bandwidth if many of the time slots are left unused. Statistical time division multiplexing solves this problem by dynamically allocating time slots to active devices on a first-come-first served priority basis. A control field identifies the owners of each slot's data so that the receiving multiplexer can appropriately split out all the individual signals.

414. What is Observation Research?

Observation is the act of taking of facts and depositing them in the memory either directly or after being correlating with already available facts. Observation can fairly be called the classic method of scientific enquiry. The accumulated knowledge of biologists, physicists, astronomers and other natural scientists is built upon centuries of systematic observations, much of it in phenomena in their natural surroundings rather than in the laboratory. Hence the distinguished feature of observation in the extended sense is that information required is obtained directly rather than through the reports of others. Observation often involves the measurement of some quality and quantity.

415. What is Empirical Research?

Research can take over the results of observation, sort them out, and induct from them, with statistical methods including normal equations and correlation – certain generalized relation between facts. These are called empirical laws. The distinctive mental process involved in arriving at

empirical laws is induction. This is devoted by the term Empirical Research. It is really a matter of fact research. Ranganathan called it Pragmatic research.

416. What is Priority Research?

The distinctive process involved in a Priority Research is deduction. Intellect plays the vital role in deduction. It moves from assumed cause to its effect. It has two levels pure research and applied research.

417. What is RefWorks?

RefWorks is a new Web-based tool that facilitates the management and of your bibliographic references while simplifying the process of preparing a bibliography.

418. What is Folksonomy?

With World Wide Web (WWW) moving towards next generation, known as Web 2.0, more and more applications are encouraging users not only to consume content but also to generate content with ease. This is resulting in generating enormous content on the web. Organizing content on the web is still a challenge for everyone. Web 2.0 also brings a mechanism called "Folksonomy", which will help in organizing the content by the users. Folksonomy allows users to tag or assign keywords to the content generated from their perspective so that these tags can be used in the future to retrieve them.

The jargon "Folksonomy" is a blend of two words "Folk" and Taxonomy". It stands for the conceptual tags assigned to the content by the users. As per Thomas Vander Wal, who coined this word, "Folksonomy is the result of personal free tagging of information and objects (anything with a URL) for one's own retrieval. The tagging is done in a social environment (usually shared and open to others). Folksonomy is created from the act of tagging by the person consuming the information."

A system which allows for "folksonomy", users are free to add tags to a piece of content (picture, information, etc) from their perspective so that they will find it easy to retrieve it later. Since, there are no predefined categories; users are free to categorize their resources. This makes the task of categorizing or tagging simple to the user.

419. Reference Services 2.0

A reference services model based on Web 2.0 principles called Reference Services 2.0 or RS 2.0 in this article. RS 2.0 is a proposal model using Web 2.0 tools for an effective reference service in 2.0 libraries.

420. Library 2.0

The term Library 2.0 was made by Michael Casey on his Library Crunch Blog (Curran, Murray & Christian, 2005). According to Stephens & Collins (2007), Library 2.0 is not only an extension of the rebooting of the Web, it is an application of the philosophies surrounding what makes Web 2.0 work. Library 2.0 seeks to break down barriers: barriers librarians have placed on services, barriers of place and time, and barriers inherent in what we do. In this user-centered paradigm, libraries can get information, entertainment and knowledge into the hands of users wherever they are by whatever means works best. Although Library 2.0 utilizes Web 2.0 technologies, it is not about replacing the traditional technology adapted by libraries already in use but rather about adding additional functionality. In fact, web 2.0 principles offer libraries many opportunities to better serve their existing audiences.

421. RSS 2.0

RSS is an XML-based data system for websites to exchange files that contain publishing information and summaries of the site's contents. Indeed, in its earliest incarnation, RSS was understood to stand for Rich Site Summary.

There are a number of RSS formats (RSS 0.91, RSS 0.92, RSS 1.0 and RSS 2.0). The major component of Web 2.0 technology is RSS Software programmes known as "Feed Readers" or "Aggregators" that routinely check user's "subscribed feeds" to see if any of those feeds have new digital content such as news, blogs or podcasts. If there is new or updated content, the digital content is retrieved and that content is presented to the user. Some aggregators take existing web feeds and combine them into a new feed that is a summary of multiple feeds, blogs, podcasts, etc. on a specific topic. As new methods of information creation spread to

institutional users, finding ways to exploit these new resources is becoming equally important for professional users. Furthermore, developments in the global sphere have increased the level of expectations among all possible users who expect their work tools to be as interactive and receptive to be changed.

422. Data Upload Process in GSDL.

(i) Select 'New' to create New Collection;
(ii) Mention the "Collection Title" (e.g. PG Question Paper)
(iii) Describe the content (e.g. PG level Question Paper of B.U.)
(iv) After Content description clicks on 'OK' to save the file name under 'Documents in Greenstone Collections';
(v) Click on "Gather" to new collection creation;
(vi) Data gathering into Digital Library collection from Local File Space or Home Folder. Drag the selected collection from left to right;
(vii) Enriching the digital library data into Dublin Core Metadata;
(viii) For extra plugin use "Add Plugin"(Document Plugins, Search Index, Partition Index & Browsing Classifiers);
(ix) New Collection is ready for searching on the basis of given index term;
(x) For Collection Title, Collection Folder & Searching Parameter, click on Format option;
(xi) New collection in GSDL window after new collection creation in GLI;
(xii) Searching through: Title, Creator, Date, Description, Format, Language, Publisher, Subject, File Name etc.

423. Mention the Key Components of Digital Library.

(i) Initial conversion of content from physical to digital form;
(ii) The extraction or creation of metadata or indexing information describing the content to facilitate searching and discovery;
(iii) Storage of digital content and metadata in an appropriate multimedia repository. The repository will include rights management capabilities to enforce intellectual property rights, if required. E-commerce functionality may also be present if needed to handle accounting and billing;

(iv) Client services for the browser, including repository querying and workflow;
(v) Content delivery via file transfer or streaming media;
(vi) Patron access through a browser or dedicated client;
(vii) A private or public network.

424. Application of Podcasting in Libraries.

- The library that works hard to produce audio content such as recordings of programmes or library tours, podcasting can be an effective means of making that content more widely available;
- Podcast highlights about new resources;
- Podcast enable librarians to share information with anyone at any time;
- Podcasting can be a publishing tool for users and librarians' oral presentations;
- Libraries can subscribe podcasts from lead publishers of scholarly communication for interactive learning experience to the users.

424. Mention the Application of Tagging in Libraries.

- Tagging can be applied to the Learning Management Systems (LMS) for editing the subject headings from the user point of view and thereby enhancing the indexing and relevancy of the searches, making the collection more dynamic;
- Tagging would greatly facilitate the lateral searching.

426. Mention the Categories of Blog?

(i) Personal Blog (ii) Corporate Blog (iii) Media Blog (iv) Device Type (v) Genre Type.

http://www.bloghints.com has categorized the blogs into many groups and prepared a directory of blogs and search engines. Some of the categories are:
(i) Arts and Culture Blogs (ii) Blog Resources (iii) Business Blogs (iv) Community Blogs (v) Computers Blogs (vi) Dating Blogs (vii) Directory Blogs (viii) Education Blogs (ix) Entertainment Blogs (x) Environment Blogs (xi) Financial Blogs (xii) Food and Drink Blogs (xiii) Games Blogs (xiv) Health

Blogs (xv) Internet (xvi) Military Blogs (xvii) Sports Blog (xviii) Technology Blogs (xix) Society Blogs (xx) Science Blogs (xxi) Religion Blogs (xxii) Politics Blogs (xxiii) Pets Blog (xxiv) Other Blogs.

427. Mention the Blog Search Engines.

Amatomu, Bloglines, BlogScope, Ice Rocket, Sphere, and Technorati.

428. Mention some Blogging Tools/Software.

Blogger, TypePad, Basic, TypePad Plus, TypePad Pro, Blogware, Word Press, Movable Type, Expression Engine, MySpace, LiveJournal, TextPattern etc.

429. Mention the disadvantages of Blog.

(i) Commenting of blogs is an odd form of communicating
(ii) It depends on Internet connection and Internet Speed
(ii) It is a personal webpage and the organization is not responsible for any of the content
(iii) It creates a hard to define community where people come and people go
(iv) The comment feature of Blog is vastly overrated rather than conent

430. What is Mobile Learning?

Georgiev et.al. (2006): A new stage of the development of e-learning.

Caudill (2007): Any e-learning application delivered on demand via mobile device.

Pinkwart et.al. (2003): E-learning that uses mobile devices and wireless transmission.

431. Mention the Mobile Network Technology.

AMPS – For analog communication.

D-AMPS, CDMA 2000, EVDO, GSM, UMTS and GPRS – For Digital Communication.

432. Mention the Mobile Communication Methods.

SMS, MMS, WAP, WLAN, WIFI, GPRS, Blue tooth, Infrared, IrDA and I-Phones.

433. Wikis

A wiki is a webpage or set of WebPages that can be easily edited by anyone who is allowed access. Wikipedia's popular success has meant that the concept of the wiki, as a collaborative tool that facilitates the production of a group work, is widely understood. Wiki pages have an edit button displayed on the screen and the user can click on this to access an easy-to-use online editing tool to change or even delete the contents of the page in question.

Examples of Wikis are Wikiquote, Wikisource, Wikipedia and Wikinews etc.

434. Instant Messaging (IM)

IM is a form of realtime communication between two or more people based on typed text, images etc. IM has become increasingly popular due to its quick response time, its ease of use, and possibility of multitasking. It is estimated that there are several millions of IM users, using for various purposes viz: simple requests and responses, scheduling face to face meetings, or just to check the availability of colleagues and friends.

435. Tagging

A tag is a keyword that is added to a digital object (e.g. a website, picture or video clip) to describe it, but not as part of a formal classification system. The concept of tagging has been widened far beyond website bookmarking, and services like Flickr (Photos), YouTube (video) and Audio (podcasts) allow a variety of digital artifacts to be socially tagged.

436. Mashups

A mashup is a Web application that combines data from more one source into a single integrated tool. An example is the use of cartographic data from Google Maps to add location information to real-estate data, thereby creating a new and distinct web service that was not originally provided by either source. Content used in mashups is typically obtained from a third party source through a public interface or API (web services) (Wikipedia, 2008). Mashups perhaps the single conceptual underpinning to all the technologies discussed above. For example WikiBios is a site where users create online biographies of one another, essentially blending blogs with social networks. In some ways, many of the technologies discussed above are mashups in their very nature (Maness, 2006).

TSMaps – This mashup gathers breaking news from a wide range of sources and displays them on a map of the world. Countries with breaking news are highlighted in orange, and user can click on any country to get headline news. Dealscloud – This mashup takes information from Fatwallet and SlickDeals and arranges it into a tagcloud. This allows user to get a visual representation of the most popular deals for the day and can quickly find the hottest deal happening on any given day; PubWalk – Pubwalk combines Google Maps with information from CitySearch to create a good mashup to check while barhopping (searching for bar). User can get the latest information on bars and pubs in his surrounding locations and leave his own reviews. GolfBonk – Great for any golfer, this mashup allows you to search for golf courses in a specific area and zoom in to view the course hole by hole to get a leg up on the competition or just to get a better idea of the course hazards.

437. N-LIST

National Library and Information Service Infrastructure for Scholarly Content (N-LIST) funded by MHRD under National Mission on Educational ICT.

438. What is Self-Archiving?

Self-archiving, also referred to as institutional repositories or digital repositories, proposes that copies of articles (pre-prints and post-prints) may be deposited to institutional repositories and made available for all.

439. Mention Some Mobile Computers.

Laptops, Palmtops, Sub notebooks, Portable Data Terminal (PDT), Personal Digital Assistance.

440. Define Ning.

Ning was co-founded by Mark Andressen and Gina Biomchini in 2005. The word 'ning' means 'peace' in Chinese. According to the creator, Ning is an online platform for people to creat their own social networks. It empowers the network owner with own visual design, choice of features and member data. Ning has both free and paid options.

441. Define Cloud Computing.

A cloud represents a pool of virtualized computing resources as well as mechanisms to manage those resources. Cloud computing provides distributed computing infrastructure, data storage and computer processing capabilities through the Internet in an abstract way, where neither the service creators nor the end users of that service need to be involved with the specific supporting hardware components. In other words, cloud computing delivers scalable IT resources including applications, services and infrastructure on which they operate over the Internet.

442. Mention the Application of Semantic Web in Libraries.

- Build tools for discovering and navigating digital resources on the web.
- Data architecture scalable to the entire web
- Interoperable across systems, institutions, domains

443. What is Information Commons.

Information Commons – a specific location designated to deliver electronic resources for research and production that is maintained by technically proficient staff. Information Commons and open access

constitute the practice of the libraries' idea of information share, they are the natural extension of library services and inevitable direction of innovative services.

444. Mention the Evolutionary History of E-Resources.

Electronic resources were widely available beginning in the 1960s. The development of the MARC format in 1966 that laid the foundation for libraries to share bibliographic data; introduction of a shared cataloguing database, now called WorldCat by OCLC in 1971 to support 54 academic libraries in and around Ohio; introduction of OPAC by Ohio State University libraries in 1975; introduction of OPAC by Ohio State University libraries in 1975; introduction of web-based catalogue by Peter Scott of the University of Saskatchew known as HyWebCat in 1997 being the first attempt to provide information on web-based catalogs; emergent of the first Dialog database software under the leadership of Roger K. Summit at Lockheed in 1966; introduction of first CD-PACs as a library by Brodart in summer, 1985; use of Online databases in the 1980s; emergence of first web-based full text multimedia database at North Carolina State University using Endeca Technologies Information Access Platform (IAP) software in an January 2006; appearance of aggregated databases e.g. *ProQuest* in early 1990s; sharp increase of e-journals on the world wide web in 1995 from 115 to 1300; and popularity of commercial e-books in CD-ROM format such as the 'The Library of the Future' that contain 300 public domain literacy works in ASCII format in 1991 are some of the thrilling evolutionary developments in the field of e-resources which the libraries started experimenting the benefits.

445. What is Social Bookmarks?

Social bookmarking is a method for Internet users to share, organize, search, and manage bookmarks of web resources. Unlike file sharing, the resources themselves aren't shared, merely bookmarks that reference them.

In other way, it is the practice of saving bookmark to a public website and tagging them with keywords. Bookmarking, on the other hand, is the practice of saving the addresses of a websites that we want to remember and wish to visit in the future. To create a collection of

social bookmarks, user needs to create an account in social bookmarking site, which lets to store bookmarks, add tags of your choice and designate individual bookmarks as public or private. Some sites periodically verify that bookmarks still work and also notifying users when a URL no longer functions. Visitors to social bookmarking sites can search for resources by keyword, person, or popularity and see the public bookmarks, tags, and classification schemes that registered users have created and saved. A few examples of social bookmarking websites are: Digg, delicious, newswine and Connotea etc.

446. Mention the Application of Social Bookmarks in Libraries.

- Simplifying bibliographic distribution lists, users can describe them by providing specialized knowledge
- Elaborating link services recommended from specific fields of knowledge
- Sharing resources with other users who are using them for research
- Promoting participation and interactive with users

447. Mention the Application of Blog in Libraries.

- Blogs serve as a platform where the users can file their concerns, queries and suggestions regarding the services and activities of the library
- Blogs can also be used for the collection development where the users request the resources
- Blogs can be used as a tool for marketing of the information as well as the library
- Can be used as tool for posting minutes of the meetings for necessary actions
- Blogs can serve as discussion forum
- Promoting library events
- Community engagement
- Postings on a Blog are almost always arranged in a chronological order with the most recent additions
- To engage customers and push fresh content to user

- Email spam filters do not block Blogs because they are not an email communication
- You can make as many Blogs as you like on any subject
- Blogs can be accessed from from anywhere and any time
- Blogs have the potential to develop a stronger sense of community across different groups of individuals who may seldom meet in person
- Instant feedback mechanism is possible in Blog
- A blog is also a good way to keep track of articles on a site
- Blog gives unlimited space to users
- A typical Blog combines text, images and links to other blogs, webpages, and other media related to its topic

448. Mention the Application of Wikis in Libraries.

- Wikis can be used for social interaction and discussions among the librarians & users as well
- Promoting professional development with the creation of forums to exchange ideas on specific areas
- An internal communication medium for sharing information amongst the library's staff
- Wikis can also be used by the users to share information and enhance the content, and a record of these transactions is achieved for future reference
- Freely accessible and open content on any given subject or concept for intermittent consultant
- Reference resources wiki can be built

449. Write about Social News.

Social news is similar to social bookmarking but instead of saving websites as whole, social news concentrates on individual articles. These articles can be from mainstream news outlets like Reuters or the Associated Press or they can be blog posts. Social news websites are divided into categories similar to traditional news such as current events, entertainments, sports, etc. They also tend to have voting systems where users can vote for or against the articles posted, allowing readers to

quickly navigate the best articles. The most popular social news sites are Digg, Eddit, Newsvine and Propeller.

450. What is CALIBRE?

Calibre is a free and open source e-book library management application developed by users of e-books for users of e-books. It is designed around the concept of the logical book i.e., a single entry that may correspond to actual e-book files in several formats. It was started on 31st October 2006, soon after the release of the SONY PRS-500.

451. What is NPTEL?

NPTEL is the National Programme on Technology Enhanced Learning. It was first started in seven IITs, IIS and other premier institutes.

452. Full form of Digital Library Software and/or Developer and Software requirements.

(a) CDS Ware: CERN Document Server Software, developed by CERN Document Server.
Software needed: MySQL database server and Apache/PHP, Python, Unix (OS). GNU General Public License.
(b) DSpace: Digital Space developed by MIT, USA & HP labs. Apache Web Server, Tomcat Servlet engine and Postgre SQL relational database system, Unix (OS). BSD License.
(c) E-prints: Electronic Prints developed by University of Southamton. It requires Apache, MySQL databases, Perl language, Unix OS. GNU General Public License.
(d) FEDORA: Flexible Extensible Digital Object Repository Architecture, developed by
Virginia and Cornell Universities. It requires Sun Java software,MySQL/oracle 9i, Windows/Unix (OS). Mozilla Public License.
(e) Ganesha Digital Library: developed by YLTI & IDRC. It needs Apache web server,
MySQL database, Perl language. GNU General Public License.
(f) Green Stone Digital Library: University of Waikato with cooperation of UNESCO and the

human Info NGO. It requires Apache web server, MySQL database and Perl language, Windows, Linux/Unix OS. GNU General Public License.

(g) i-Tor: developed by IT-A section of NIWI-KNAW. Java script, MySQL, Jetly Web server,
Linux and Unix OS. GNU General Public License.

(h) ivia: developed by INFOMINE, LOOK, MEL & Virtual reference library. It needs MySQL
& Berkeley DB database management packages and it is written in C++ language. AGPL
License.

(i) PHronesis: developed by CONACYT, ITESM. It needs Unix, Linux and Solaris to work. GNU General Public License.

(J) ROADS: Resource Organization And Discovery in Subject-based Services. Developed by Institute of Learning and Research Technology (ILRT) UK Office of Library and Information Networking (UKOLN). HTTP Apache Server and Perl language, Unix OS. Artistic license and GNU General Public License.

453. Mention the Process of E-Publishing.

(i) Creator/Author preparation
(ii) Peer Review
(iii) Editing
(iv) Database structure
(v) Production and Distribution
(vi) Archiving

454. Mention some E-Publishing Projects.

(i) Project Gutenberg (1971, at Materials research Lab of University of Illinois)
(ii) NetLibrary (1998, Colorado, leading provider of e-books, e-journals)
(iii) World e-Book Library (World Electronic Text Library Foundation, Honolulu)
(iv) E-Books (Kent State University)
(v) Online Books Page

(v) E-print Archive (The Institute of Mathematic Sciences, Chennai, funded by Cornell University, in the field of Physics, Math, Non-Linear Science, Computer Science, Quantitaive Biology)
(vi) EBSCO (Information and Management solution)
(vii) ScienceDirect (Science Technology and Medical article)
(viii) Directory of Open Access Journals
(ix) Ovid (internationally recognised leader of electronic medical, scientific, and academic research information solutions)

455. Advantages of Open Access.

(i) Easy access
(ii) Speed
(iii) Linkages
(iv) Costs
(v) Multimedia

456. Disadvantages of Open Access.

(i) Financial constraints
(ii) Social constraints
(iii) Technological constraints

457. Other issues of Open Access.

(i) Stability and storage
(ii) IPR issues
(iii) Selection and acquisition
(iv) Cataloguing
(v) Users access

458. Write about Ajax.

It is relatively newapproach to creating web applications. It enriches the user interface, making it highly interactive and more responsive. It's really several technologies coming together in powerful new ways – XHTML or HTML cascading style sheets (CSS), Java Script, and XML, AJAX style programmeming makes web pages more responsively by

exchanging small amounts of data with the server so that the entire web page does not have to be reloaded each time the user requests a change. An AJAX applications eliminates the start – stop – start – stop nature of web interaction by introducing an intermediary – an AJAX engine – between the user and the server.

459. Explain Web 3.0.

It is the next step for web technology. Beyond any doubt, Web 3.0 will be more interactive than its predecessors, because it will learn about users and tailor searches and content to their interests. *Stumble Upon* is an example of a website using Web 3.0 technology. By utilizing a simple feature of rating whether users like or dislike webpage, Stumble Upon is able to learn user patterns and bring about more relevant searches that the user will be more likely to enjoy. Web 3.0 guarantees that every user will have a unique and intimate experience when surfing the Internet. Instead of having to machete through web content that is useless to the user, "the web" will gather information about each person by recording and analyzing their Internet habits. Imagine logging onto a news website, and only getting the news that you're interested in, without having to manually search for it. Brilliance!

460. Write about Web 4.0.

Web 4.0, future of web technology, out of few resources which have been discovered are actually wrestled with the subject, most of them concluded that web 4.0, would be akin to what we cal Artificial Intelligence, or A.I.. This means that computers (more specifically, the Internet) would be able to "think and make decisions" with regard to user searches and/or content. The projected evolution of web technology may very well lead to humans coexisting with robots. Robots that act and think like us. Of course A.I. will probably start with computers and then move forward from there. That means computers can give suggestions based on educated studies of how we live and what we want/need.

461. What is Stress?

Stress is the mental, physical, situational and emotional reactions, you experience as a results of demand of your life. Stress is a common

word and it is everyone's problem. Stress is the changes which our bodies experience as we adjust to our continually changing environment. It is fact that a normal person can conquer up to 86 percent.

The word 'stress' is defined by the Oxford Dictionary as "a state of affair involving demand on physical or mental energy". A condition or circumstance (not always adverse), which can disturb the normal physiological and psychological functioning of an individual. Stress word is derived from the Latin word "string" which means "to be drawn tight". According to Richard S.Lazarus, stress is a feeling experienced when a person thinks that "the demands exceed the personal and social resources the individual is able to mobilize". In 1956, Hans Selye said "Stress is not necessarily something bad. It all depends on how you take it. The stress of exhilarating, creative successful work is beneficial, while that of failure, humiliation or infection is detrimental".

462. Mention the Impact of Stress in Library Professional.

(i) Stress cause abnormal blood pressure
(ii) Stress cause diabetes
(iii) Keep in mind that 75% diseases are stress related
(iv) Memory loss
(v) Weight loss
(vi) Weakness

463. Mention the Strategies for Reducing Stress.

(i) Reduce your demands or increasing your resources.
(ii) Read funny books, meet the funny people, watch the funny films, share the jokes.
(iii) Laughter brings strength. Now even medical science says that laughter is one of the most deep-going medicines nature has provided to man. Laughter is a nature's greatest tonic. It also kills stress. Make up your mind to laugh at your cares and worries and your stress will disappear.
(iv) Make yourself happy first. So, keep smile it cost nothing.
(v) Just start thinking positive.
(vi) Start work through proper planning and set goals. Take small, small steps to achieve your goals.

(vii) Use your think times, like shaving, bathing, travelling, to prioritize accordingly. Through this you can reduce stress.
(viii) For stressfree life, stop comparaing and if you have to compare, compare with your own potential.
(ix) Keep your sights high not increase your stress but to increase your self-satisfaction level, and happiness.
(x) Improve your self-image.
(xi) Do not shout on others.
(xii) Take one thing at a time.
(xiii) Start enjoying whatever you do for your living.
(xiv) Learn to say no and accept no.
(xv) Communicate properly.
(xvi) Do not be in hurry.
(xvii) Yoga
(xviii) Seek more information about the situation-information provides one with control of a situation.
(xix) Try to reduce stress by expressing feeling to an uninvolved person. Build your support systems outside the workplace.
(xx) Increase your physical exercise to have a greater feeling of wellbeing.
(xxi) Step away from the workplace to have a break or lunch or even take a walk to refresh your mind.
(xxii) Search for a philosophical or spiritual meaning in the stressful experiences.

464. Mention the Impact of Stress in Library Professional.

(i) Stress cause abnormal blood pressure.
(ii) Stress cause diabetes.
(iii) Keep in mind that 75% diseases are stress related.
(iv) Memory loss.
(v) Weight loss
(vi) Weakness

465. What is Benchmarking?

Benchmarking is "the process of identifying, learning, adapting and measuring outstanding practices and processes from any organization to improve performance.

466. Mention the Importance of Benchmarking.

Benchmarking is one of the useful tools to evaluate the performance of an organization. Though benchmarking one can identify the organization(s) which are excellent, qualitative and superior to other similar type of organization(s). Benchmarking creates a scene of what is possible, what is acceptable and what is not acceptable.

467. Mention the Application of Benchmarking in the University Libraries.

While applying the benchmarking in the university libraries, one should draw some of the important areas for it. Spendolini (1994) believes in addressing some of the questions to determine the 'benchmark'. Most probably, all these questions were raised for a 'non-profit making organization'. Spendolini addresses the following questions:

(i) What is the most critical factor to my function's/organization's success?
(ii) What factors are causing the most trouble?
(iii) What products or services are provided to customers?
(iv) What factors account for customer satisfaction?
(v) What specific problems have been identified in the organization?
(vi) Where are the competitive pressures being felt in the organization?
(vii) What are the major costs in the organization?
(viii) Which functions represent the highest percentage of cost?
(ix) Which functions have the greatest room for improvements?
(x) What functions have the greatest effect for differentiating the organization in the market place?

468. Mention the Types of Benchmarking.

Two types of benchmarking, external and internal.

469. What is Internal Benchmarking?

In the internal benchmarking, the performance may be evaluated by comparing the functionality with other units of the same organization. The function of one unit can be evaluated and compared with other unit which has achieved the target/excellency/quality.

470. What is External Benchmarking?

In the external benchmarking, the evaluation can be measured with other organization/unit throughout the globe.

471. Mention the Reasons for Benchmarking.

The only results of the benchmarking should not be only the criteria for reaching up on the decision. This may be one of the criteria for changes the things in the library. Before applying the results, the libraries should decide that:

(i) What new information they are going to apply from this benchmarking study?
(ii) The quantity of percentage ratio of weightage that this benchmark holds in compare to other criteria in decision making.
(iii) The main reasons behind looking for the improvement in the services and functions.
(iv) Are library users complaining a lot?
(v) Do they always cite examples of other libraries?
(vi) Are they citing about other improved information technology/computer technology/communication technology?
(vii) Are the faculty members are unhappy with the output of the library?
(viii) Is the university is going to start some of the major important projects and the 'investigators' find the library a poor one?
(ix) Do the libraries have sufficient infrastructure and manpower to implement the results?
(x) Are the cost benefit analysis suits in implementing the results? Etc.

Therefore, it is suggested that 'benchmark, must reflect the key uses as well as reasons in the libraries.

472. Mention the Steps for Developing a Benchmarking Process.

In brief, and, as suggested by Sue Hanczel the libraries can adopt the following steps while developing a Benchmarking process:

(i) Plan what you going to benchmark
(ii) Define your process and identify all of the inputs the process
(iii) Flowchart your process
(iv) Identify problems in the process and their possible causes
(v) Develop your metric
(vi) Collect data – measure your process
(vii) Compare collected data with benchmark pattern
(viii) Identify areas for improvement
(ix) Formulate recommendations and an improvement plan
(x) Implement improvements

The following steps are seems to be most appealing in the case of university libraries benchmarking:

(i) Plan: It should include benchmarking areas, review of the operations, provisions of continuous evaluation; customization of the benchmarking.
(ii) Testing of the Plan: Whatever you have planned, it should be checked out through 'pilot study'.
(iii) Application: Start benchmarking.
(iv) Examining: Whatever data collected, please check and correct if needed
(v) Implement: Final implementation of the results of benchmark
(vi) Recycle: There should not be an end of the application. Whenever/wherever improvement needed, it should come through the process of 'recycle' i.e. again Plan, Testing, Application, Examination, Implement and Recycle.

473. Mention the benefits of Benchmarking.

The following benefits can be achieved from the benchmarking:

(i) The present work work and service efficiency can be improved in the libraries.
(ii) The libraries can establish market place
(iii) The proficiency of staff can be increased

(iv) Users' satisfaction can be achieved
(v) The inadequate library resources can be weeding off
(vi) Benchmarking develops a 'team' concept among the library staff, and the team work is always better then the individual
(vii) Support of the university authorities may increase to the libraries
(viii) It helps to achieve the goals of the university
(ix) The library resources can be utilised upto maximums extend, and finally
(x) The objectives of Five Laws of Library Science can also be achieved

474. Define Personality Development.

Personality is generally defined as the deeply ingrained and relatively enduring patterns of thought, feeling and behaviour. In fact, when one refers to personality, it generally implies to all what is unique about an individual, the characteristics that makes one stand out in a crowd.

Basically a person's personality is developed through the intermingling of hereditary and environment factors.

475. Mention the Traits for Personality Development.

There are several traits which contribute in the development of personality of a professional. A few of them are:
(i) Communication
(ii) Leadership Style
(iii) Motivation
(iv) Interpersonal Relations
(v) Stress Management
(vi) Planning for Team Building
(vii) Time Management
(viii) Productivity
(ix) Life Long Learning

476. Mention the Causes of Change in Library Environment.

The library and information science environment has been seriously altered because of the social and technological changes that

look place during past few decades. The main causes of change in library environment are:

- Rapid development of Information Communication Technology and its impact on library system and services
- Information technology has made a great advance with popularizing www and its access by people throughout the world
- The volume and variety of information, particularly the electronic information are being produced day by day have reached to an alarming stage
- Striking and unexampled changes that have been brought by end users of information and information system for the pin pointed and exhaustive information within very limited time. It may be termed as behavioural changes of users in the end use of information
- The trends of libraries have been more users oriented than past with the use of various web based tools
- The value of information has been enhanced within an organization as well as in an individual
- The changing attitude of libraries to reach in a state of excellaence.

477. Meaning of Customer Relationship Management (CRM).

CRM, refers to Customer Relationship Management, has its origin in the Contact Management in 1980s. The aim is to establish a management mechanism to improve the relationship between enterprise and customer. As a business strategy, CRM effectively organize the enterprise resourcein the department of marketing, sales and support.

The origin and development of CRM is inspired by three aspects:

(i) Pull the demand
(ii) Promote the information technology and
(iii) Renovate the management idea

478. Why CRM in Library and Information Centres (LICs)?

In today's dynamic and turbulent business information environment, there is a strong need for the library and information centres to become globally competitive. In a LICs, the business features can work as:

(i) Provide better customer service
(ii) Make all centres more efficient
(iii) Cross reference the products more effectively
(iv) Help staff close deals faster
(v) Simplify reference and related query processes
(vi) Discover new customers
(vii) Increase customer revenues in terms of time and satisfaction

479. How You Identify the Stress?

According to Preston (1996), the following symptoms indicate workplace stress and impending low morale.

- Work efficiency decline markedly
- Refusal to cooperative with others, citing dissatisfaction
- Negative behaviour towards one's work group, one's entire organization of profession
- Blames scapegoats, such as boss and spouses even blames others for their own errors and failures
- Disorientation and signs of mental or physical breakdown during crisis periods

480. What is Electronic Document Delivery?

Electronic Document Delivery refers to the ability to "create, distribute, and view documents without ever touching a piece of paper. Electronic Document Delivery system implies delivery of electronic version of a document that might involve reproduction of an electronic version of a document if it is not already available in electronic format. Application are built in such a way so as to automatically produce a hard copy together with a header page containing the address of the applicant which can again be sent by mail or facsimile.

481. Mention the early evidence of user education.

According to Tiefel, the origin of library user education date back to more than 190 years. The earliest evidence of instruction – a librarian lecturing to indergraduates –was found at Harvard College in the 1920s.

482. Meaning of Library Orientation.

Libraries support training programmes for a wide range of users. This role has been expanded now-a-days to encompass continuing educational programmes. Important by-products of the library's teaching efforts are an enhanced image of the library and more supportive to library users.

The more basic form of user education is orientation to the library. All new users stepping into a new environment of the institute requires an introduction to its library facilities. To meet these needs libraries have an active orientation programme which includes printed library guides and printed brochures. Printed materials serve as an efficient means for providing directional information that is required by a new user, but they cannot substitute for individualized orientation.

483. Mention the Basic Methods of Library Orientation.

User education is a continuous process which has to be performed for all user groups. There are various methods by which a librarian can orient the users regarding the library services.

(i) Class room presentation: In academic settings the role of librarians as guest lecturers is quite very common now-a-days. A librarian begins with a brief statement about the library's collection in the subject area and mentions the special features about the library and its collection. This intended to provide bibliographic guidance within the course context of the institute.

(ii) Printed brochures: This is the primary document of any library that describes the access to its collection. The primary purpose of the brochure is to provide an introduction to the library by explaining the scope and arrangement of the collection and by advising the users about the availability of services.

(iii) Signs and Notice Boards: Signs provides basic directional information to library users. The signs identify various library collections, service points, and facilities. Signs should be informative, attractive, and noticeable without being conspicuous or sarcastic from the overall physical attractiveness of the library. Where appropriate, signs should fulfil the provisions specified in terms of location, height, colour, and contrast.

(iv) Workshops and Seminars: Innovators in library science have identified key library skills that can be taught in a seminar or a workshop format. Many health science library professionals are being invited to deliver lecture on MEDLINE and other relevant information pertaining to medical health science students.

484. Mention the barriers in the User Education Programme.

In some cases it has been noted that the management do not consider a librarian as teaching staff. They wonder whether a librarian can also play as an educator and can carry out this task or compete. Libraries need to develop or access for communicating these skills. If a collaborative partnership with teachers is established then information literacy programmes are more likely to support and become a vital part of the instruction procedure. Some of the librarians are afraid or feel shy to pass on the skills which they have in, fearing that they will be seen as superfluous if they do so.

485. Meaning of Wi-Fi.

Wi-Fi (Wireless Fidelity) is wireless technology which enables connection between two or more devices wirelessly for data sharing purposes. It is wireless networking which is the standard for wireless local area networks (WLANs). It's like a common language that all the devoces use to communicate to each other. If you have a standard, people can make all sorts of devices that can work with each other. Wi-Fi is also known as the wireless Ethernet 802.11b standard for WLANs. This technology is now being used by millions of people using various devices such as personal computers, laptops, pdas, printers, camera, games, mp3 players etc. More and more gadgets are coming with built in feature of this amazing wireless technology and has reached to its heights but thirst of knowledge is still in race and will always till end of the world. Wireless communication between computers is certainly one of the most appreciated and used technology globally.

486. Mention the Basic Components of Wi-Fi.

All wireless devices that join a Wi-Fi network, whether mobile, portable or fixed, are called wireless stations (STAs). A wireless station might be a PC, a laptop, or a Rabbit core module. When two or more STAs are wirelessly connected, they form a basic service set (BSS). This is the basic building block of a Wi-Fi. A BSS is a set of STAs controlled by a single coordination function (CF). The CF is a logical function that determines when a STA transmits and when it receives.

487. Explain the Wi-Fi Network Services.

(i) Distribution: This service is used by mobile in an infrastructure network every time they send data. Once a frame has been accepted by an access point, it uses the distribution service to deliver the frame to its destination.

(ii) Integration: Integration is a service provided by the distribution system; it allows the connection of the distribution system to a non-IEEE 802.11 network. The integration function is specific to the distribution system used and therefore is not specified by 802.11, except in terms of the services it must offer.

(iii) Re-association: When a mobile station moves between basic service areas within a single extended service area, it must evaluate signal strength and perhaps switch the access point with which it is associated. Re-associations are initiated by mobile stations when signal conditions indicate that a different association would be beneficial; they are never initiated by the access point. After the re-association is complete, the distribution system updates its locationrecords to reflect the reachability of the mobile station through a different access point.

(iv) Disasspociation: To terminate an existing association, stations may use the disassociation service. When stations invoke the disassociation service, any mobility data stored in the distribution system is removed. Once disassociation is complete, it is as if the station is no longer attached to the network. Disassociation is a polite task to do during the station shutdown process. The MAC is, however, designed to accommodate stations that leave the network without formally disassociating.

(v) Authentication/De-authentication: Authentication is a necessary prerequisite to association because only authenticated users are authorized to use the network. De-authentication terminates an authenticated relationship. Because authentication is needed before

network use is authorized, a side effect of de-authentication is termination of any current association.

488. How you plan Wi-Fi Network for Library Campus?

While deploying Wi-Fi network in the library campus, we need to make a planning for the same is discussed as follow:

(i) Library Physical Location: The physical location of a wireless network has a major influence on it. Everything from atmospheric conditions to buildings and trees may change the strength and direction of RF signals. Information about the network's physical location may include such things as floor plans or blueprints. It should also include any available information about other potential networks that are in the same location or range.

(ii) Coverage Area of Library: This is area wherein a client can expect to be able to sustain a connection with an access point at a minimum data rate. RF signals propagation is unpredictable, which makes the coverage area somewhat unpredictable as well. There are differences in the coverage area when the network is outside versus inside of the library. Obstacles and interference affect coverage area, as does the transmit power of the access point. The coverage area for the highest link rate is the smallest and for the lowest link rate it is the largest. The coverage area is sometimes referred to as a cell in the wireless LAN.

(iii) Bandwidth Requirements: Getting this part of the design right will enhance the experience of using the network. How much bandwidth is required, where it is required, and when it is required, are all questions that need to be answered. Bandwidth is affected by the number of associated stations, client contention, collisions, physical channel errors, application requirements and protocol overhead. Some of these factors can be mitigated, others, such as physical channel errors and protocol overhead, are just the cost of doing business.

(iv) Security Requirements: The over-the-air transmissions in wireless networks introduce security risks not present in wired networks. With the release of IEEE 802.11i, there are now strong security options available for Wi-Fi networks.

489. Explain the Wi-Fi Design and Prototype Set Up in the Library.

A detailed study about the process of setting up a design and prototype of Wi-Fi network, library location relative to the nearest access point to existing ICT infrastructure, traffic load and its characteristics, security, LAN/WAN protocol, topology and bandwidth requirements and utilization, allocation of bandwidth etc., have to be considered while trying to design for library campus. We need to consider the system concept discussed below:

(i) Setting a System Design of Wi-Fi Network: This is the hierarchical model. It enables us to design and arrange the inter-network device in layers. It is a model preferred by most of network design experts for its ease of understanding, expandability and improved fault isolation characteristics. The model required the following three layers.

(a) Layer One (Core Layer)

Core layer high performance switches that are capable of switching packets as fast as possible should be deployed. This layer connects the LAN backbone media. It also connects to the outside world to WAN via a firewall. In this design the devices in the core layer will be connected to switches in this layer shielded by a firewall.

(b) The Second Layer (Distribution Layer)

Distribution layer will contain switches and routers capable of VLAN switching and allow defining departmental workgroups and multicast domains. The devices should also support connectivity of different LAN technologies since they also serve as the demarcation point between the backbone connections in the core layer and the access layer. In this hospital LAN design the distribution layer represents switches/routers at each building connected to the core layer on the one end to the access layer on the other end. Use of redundant links will be used for maximum availability. The departments could be grouped forming their own virtual LAN.

(c) The Third Layer (Access Layer)

Access layer is where the end users are allowed in to the network. This layer contains switches/hubs from which PCs in each department get access to hospital LAN. Each department will have at least one switch/hub, which in turn will have redundant links to more than two of the switches in the distribution layer.

(ii) Equipment Selection: There are two types of Wi-Fi components to build a library campus Wi-fi network: Wi-Fi client devices (desktops,

laptops, PDAs), and access points that act as base stations. Client devices cover the following equipment:

(a) PC Card Radio
(b) Mini-PCI Modules and Embedded Radios
(c) USB Adapters
(d) PCI and ISA Bus Adapters
(e) Compact Flash and other Small Client Formats
(f) Access Points and Gateways

490. Mention the Wi-fi Network Set Up.

Step-by-step guide for the process of planning and setting up Wi-Fi network for library campus is outlined below:

(a) Count existing computers
(b) Pick out the right kind of Wi-Fi radios for computers
(c) Decide between a Wi-Fi gateway or access point
(d) Get the right Wi-Fi radio and accessories
(e) Read the installation instructions
(f) Read the instructions again
(g) Install access point or gateway first
(h) Install the first Wi-Fi radio device
(i) Configure the access pointy
(j) Coonect the rest of computers and the printer

491. Mention the Process of Adding Wi-Fi to Desktop Computers.

We can easily add Wi-Fi to a laptop computer, but some desktop computers can take a little more effort. For most laptops, we simply slide in a Type II PC Card Wi-Fi radio, install the software and you're up and running. Since very few desktop computers provide PC Card slots, they require a USB (Universal Serial Bus) Wi-Fi radio adapter or a PCI-based [Peripheral Component Interconnect] Wi-Fi radio adapter to connect to a Wi-Fi network.

(a) <u>USB Radio Installation</u>: Installing a USB radio adapter is simple: Plug the radio's USB connector into a spare USB jack on the front or back of your computer. Then install the software and configure the radio to talk to your computer. Then install the software and configure the radio to talk to your network, and your computer should be ready to go.

(b) PCI Adapter Installation: Installing a PCI Wi-Fi radio adapter can be a little bit more complicated. There are two types of PCI Wi-Fi radios: a one-piece PCI Wi-Fi radios: a one-piece PCI Wi-Fi card radios, and a two-piece solution that includes a standard Wi-Fi PC Card Radio and a special PCI PC Card or adapter. The first step is to open up your computer to find a spare PCI slot. Next, carefully remove the one-piece PC Card or combination PC Card and reader/adapter you've purchased from its protective wrapper and family insert it into an open PCI slot. Make sure you read the instructions that came with your card, especially the information about properly grounding yourself so that you don't damage the card because of an accidental spark of static electricity. Once the ard or card reader/adapter is firmly set into the slot, screw it down tight and close up your computer case. Then following the manufacturer's instructions, install the software. For two-piece PCI solutions, you may need to install one set of softeware for the card reader/adapter and another set for the PC Card Radio itself.

492. State the Higher Education Institutes of India.

The higher education system in India is large and complex. India has the third largest higher education system in the world, behind China and United States of America comprising of more than 471 universities, 22064 affiliated colleges, 5.21 lakhs teachers and 1,04,81,042 students including 16,602 research scholars. Colleges affiliated to 131 affiliating universities, constitute the bulk of the higher education system in India contributing around 89% of the total enrolment.

493. Mention Open Source Library Software Law in respect of Ranganathan's Law.

Mentor Cana used the term 'software'as a basic element as Ranganathan's basics element is 'book' – both software & book contains objective knowledge. According to Mentor Cana the Five Laws of the 'Software Library' could be:

The First Law	Books are for use	Softwares are for use
The Second Law	Every reader his/her book (i.e. Books are for all)	Every user his/her software (i.e. Softwares are for all)

The Third Law	Every book its reader	Every software its user
The Fourth Law	Save the time of the reader	Save the time of the user
The Fifth Law	Library is a growing organism	A software library is a growing organism

494. Mention the Uses of Greenstone Digital Library (GSDL).

(i) Ghostscript: Interpreter for Adobe Postscript documents (Postscript plugin)
(ii) Kea: Key phrase extraction programme (to generate metadata)
(iii) Pdftohtml: Converter for PDF documents (PDF plugin)
(iv) Rtftohtml: Converter to RTF documents (RTF plugin)
(v) Text Cat: Detects languages and document encodings
(vi) wvWare: Converter for Word documents (Word plugin)
(vii) Xlhtml: Converter for Excel/Power point documents (plugins)
(viii) XML: Parser parses XML documents, used to read and write Greenstone's internal XML document format
(ix) MG: Creates compressed full-text indexes and performs searches
(x) GDBM: Database used for metadata etc.
(xi) Wget: Downloading pages from the web when creating collections
(xii) YAZ: Client and server implementation of Z39.50
(xiii) Stemmer: English language stemmer

495. Mention the Advantages of GSDL.

(i) Open Source Software
(ii) Large user base
(iii) Large technical support base
  (a) Fair amount of documentation
  (b) Several active mailing lists
(iv) Easy to use/get going
(v) Distribution Collections
  (a) Automatically creates installer
  (b) Gives user choice to run from removable media or install to hard disk

(vi) Long-term document document preservation features Converts files to HTML while keeping the original at the same time
(vii) Interoperable
  (a) Supports OAI-PMH
  (b) METS
(viii) Multilingual
  Documents & Interface
(ix) Multiplatform
  User not tied to one platform
(x) Fairly mature
  +12 years old now
(xi) Minimal system requirements
  Ideal for use in developing world
(xii) Highly configurable
(xiii) General purpose DL software
  Can be used in many DL applications
(xiv) Flexible metadata support
  (a) Supports many sets
  (b) Allows editing of existing sets/creation of new ones

496. Mention the Disadvantages of GSDL.

(i) Item-centric
  Difficult to combine objects
(ii) Complicated URLs
  (a) Authentication
  (b) Users can only be added one-by-one
(iii) User Administartion
  Users can only be added one-by-one
(iv) Access Controls
  Modes that control access levels in GLI (Greenstone Library Interface) can be changed by anyone

497. Mention the problems of Open Source Software (OSS).

<u>According to the Draft Report (2001) of Digital Federation (USA)</u>:

- OSS can lack formal support making it difficult for libraries without significant capacity in their systems department to participate in OSS development or to use OSS.
- OSS needs to develop a partipatory organizational model that allows many to contribute perhaps in different ways to OSS development.
- OSS is not always easy to use. It is therefore largely inaccessible to the many libraries and library system departments that require plug-and-play software that is well documented and supported and can be easily installed (and uninstalled).
- OSS initiatives do not always do enough to get non-systems librarians and library patrons involved in design and testing of OSS. As such, they are seen as being something that exclusively offers benefits to and holds interest for library systems staff and not for the wider library community.
- The basic problem is that most open source systems are written by programmers who do not understand the end user needs and whose software is often complex and difficult to use. Thus, people argue that open source software projects need to adapt in order to produce systems that can be used by a typical and non-technical user.

498. Webometrics

The science of webometrics (also cybermetrics) tries to measure the World Wide Web to get knowledge about the number and types of hyperlinks, structure of the World Wide Web and usage patterns. According to Björneborn and Ingwersen (2004), the definition of webometrics is "the study of the quantitative aspects of the construction and use of information resources, structures and technologies on the Web drawing on bibliometric and informetric approaches." The term *webometrics* was first coined by Almind and Ingwersen (1997). A second definition of webometrics has also been introduced, "the study of web-based content with primarily quantitative methods for social science research goals using techniques that are not specific to one field of study" (Thelwall, 2009), which emphasises a small subset of relatively applied methods for use in the wider social sciences. The purpose of this alternative definition was to help publicise appropriate methods outside of the information science discipline rather than to replace the original definition within information science.

One relatively straightforward measure is the "Web Impact Factor" (WIF) introduced by Ingwersen (1998). The WIF measure may be defined as the number of web pages in a web site receiving links from other web sites, divided by the number of web pages published in the site that are accessible to the crawler. However the use of WIF has been disregarded due to the mathematical artifacts derived from power law distributions of these variables. Other similar indicators using size of the institution instead of number of webpages have been proved more useful.

The Webometrics is the extension of the theory and practice of bibliometrics in the WWW. Bibliometric researches have been criticised for certain inherent limitations of ISI's products. < *Reports the feasibility for the application of informetric methods to the World Wide Web, called Webometrics.>*

499. Web Impact Factor (Web-If)

Ingwersen first reported the investigations into the feasibility and reliability of calculating Impact Factors for web sites, called Web Impact Factors (Web-If) in 1998. He followed the same method, adopted by ISI (the Institute for Scientific Information, Philadelphia) for calculating Impact Factor (If) published by ISI.

The Impact Factor (If) is defined as the ratio of number of citations received by source items in a particular year to the total number of source items published over a fixed period of time in a particular periodical publication, say a journal. JCR (Journal Citation Reports) Impact Factors are computed considering the fixed period as two years. It means the Impact Factor (If) of a journal X for a particular year T is defined as the number of citations received in year T by all documents published in X in the years T-1 and T-2; divided by the number of citable documents published in X in the years T-1 and T-2.

In the same way, the Web Impact Factor (Web-If) may be defined as the ratio of number of links to the total number of web pages. Web-If is essentially the number of pages linking to a site or area of Internet, divided by the number of pages in that site or area at a given point of times.

Therefore Web-If may be computed at three levels – top-level domains, sub-level domains and host level domains or site-level domains. Web-If for all the abovethree levels can be formulated as:-

1. Web-If for Top-level domain
(Web-If -gtld/Web-If -ccTLD) = Number of web pages linking to the top-level domain/ Number of web pages in the top-level domain
2. Web-If for sub-level domain
(Web-If -SLD) = Number of web pages linking to the sub-level domain/Number of web pages in the sub-level domain
3. Web-If for site-level domain
(Web-If -WSLD) = Number of web pages linking to the web site/Number of web pages in the web site

500. Explain Scientometrics.

It is simply a tool to measure the impact factor of scientometric journals; it studies the quantitative aspects of literature produced through research activities in science and technology and its other allied fields. It helps in assessing the growth in research activities carried out during a particular period.

501. Explain Information Economics.

In simple terms information economics can be defined as the economic attributes of information. It was time when world was divided on the basis of economy, as economically rich and economically poor countries, but today we see the world is no more divided on the basis of economy but on the basis of information, as information rich and information poor countries. This has come to fore only when people realized that it is the information which ultimately is the driving force of a society, its development and it's over all economy.

By information economics we mean to say economic value of information. Information makes a profound impact upon the economy of a country. Information economics is also known as economics of information and deals with the study of affects of information on economy and economic decision making. As we know nearly 65% people in the world make their livelihood out of information related activities. The economic aspect of information can be seen in the light of it being treated like any other commodity and is being consumed by those who need it. For the consumption of information we do have to enter into buying and

selling of information. According to Douglas W.Hubbard, applied aspect of information economics is decision and risk analysis.

Economic attributes of information can better be evolved/understood on following grounds.

- Application of information is like that of any other commodity
- Billions of dollars are being spent on the research and development process simply to create a new piece of information
- Buying and selling of intellectual property rights like, patents, inventions, artistic works, copyrights etc. clearly defines the economic attributes of information.
- Governments, banks, public and private sector institutions frame policies on the basis of already available information and execute things proportionately by the economics of information.
- Intelligence agencies etc. extract information from their sources by paying them and the sources being well aware of the economic value of the information they possess hence manipulate things their way.
- Marketing of information and information products
- Information is about knowing facts.
- Information is quantifiable.
- Information enhances the decision making ability of a person

502. How Digital Library System is a user centric?

Users interact with different Digital Libraries and other personalised systems on a regular basis and update their profiles stored at these systems. These distributed and heterogeneous user data provide a valuable source of information in order for systems to acquire wider knowledge about users and use it to achieve personalization and better adaptation. User interoperability constitutes an essential requirement for these data to be shared effectively among different systems.

503. What are the mechanisms to access the digital library repository?

Content – In-house Digitization of Content – Standardized Digital Content – Selection of File Format – Storage Media – (Back up & Technological Upgradation) – Integration of Resources – Digital Repository Server – Intranet Access – Interface for Access – End User

504. What are the Open Source Services available in Libraries?

1. Single Sign-on Methodologies
2. Web OPAC and Cataloguing with Web 2.0
3. Digital Libraries
4. Content Management

505. What are the utilities of Open Source in Library Microcosm?

1. PDF Management/Generation Utilities
2. Media Management Tools and Utilities
3. Web Page Management and Image Management Tools
4. Web based Library 2.0 tools such as blogging, web services, tagging

506. What is Digital Natives?

Present day students are quite different in character from previous generations. They have to be regarded as 'digital natives' who prefer going digital to communicate, search for information and study across networks. "If I can get access to information with a few clicks, then that's what I'd opt for' is a common statement. They always adapt a 'living technology' as 'learning technology'.

507. What is Novelty Effects?

There may be 'novelty effects' when the students come across a new technology for the first time. However, they are very pragmatic and conservative. They abandon new methods if the expected benefits do not occur or they find the methods do not meet their needs. Keneddy et al (2008) observed that when one moves beyond entrenched technologies and tools, the pattern of access to, use of and preference for a range of other technologies show considerable variation.

508. Explain 'Age of Impatience'.

Life today is described as the 'age of impatience'. Due to immense time pressure, one prefers to turn to Internet in times of need.

Internet is a treasure trove of information. There are many portals available where you can discuss important issues, get guidance from experts on any topic. The more you explore the more benefits you can draw. Internet continues to evolve everyday breaking away from expectation.

Books tapes, CDs of yesteryear are being replaced by e-mail, video-chats and social networks. Technology and easy accessibility of e-books from the Internet have made it very easy for the users to catch up on their topics and disciplines. That way one could avoid spending more time in a library.

509. Mention One Project for Stimulating Reading Habits.

One of the programmes slated for 'Swarnim Gujarat' is 'Vanche Gujarat' – programme that focuses on promoting the art of reading across the state. The 'Vanche Gujarat' is a wonderful programme in many ways. It is heartening to see that it is trying to revive the old habit of reading in the society.

It is also enriching to know that the government is promoting a reading programme as a part of its centenary celebrations. This programme aims to reach out to millions of kids through mobile reading vans, through neighbourhood libraries, through reading interventions in local schools and colleges, though street plays on the importance of reading and though donation drives for books.

Chief Minister also launched websites related to the mission www.vanchegujarat.in website will provide all the information relating to 'Vanche Gujarat' mission.

State Government has allotted the special grant under this mission for purchasing the books on general reading. This mission has also enforced the students to visit the library very frequently.

510. What is the difference between Open Source Software and Freeware?

Both softwares are available freely through Internet but in case of Open Source software Binary Version is available as well as Source Code is available and in case of Freeware Binary version is available but Source Code is not available.

511. What is Public Domain Software?

Public domain software is software that is not copyrighted. If the source code is in the public domain that is a special case of non-copyleft free software, which means that some copies or modified versions may not be free at all.

512. Define Copyleft.

Copyleft software is free software whose distribution terms ensure that all copies of all versions carry more or less the same distribution terms. This means, for instance, that copyleft licenses generally disallow others to add additional requirements to the software (though a limited set of safe added requirements can be allowed) and require making source code available. This shields the programme, and its modified versions, from some of the common ways of making a programme proprietary.

The key feature is that once a programme is licensed by the author, the subsequent programmes based on the original must also be licensed in a similar manner. Copyleft is a type of license that attempts to ensure that the public retains the freedom to use, modify, extend and redistribute a creative work and all derivative works (i.e. works based on or derived from it) rather than to restrict such freedoms. Copyleft is a general method for making programme free, and requiring all modified and extended versions of the programme to be free as well. The simplest way to make programme free software is to put it in the public domain, uncopyrighted.

513. Mention the Origin of Copyleft.

The origin of the term copyleft is not certain. An early example of copyleft was the Tiny BASIC project started in the newsletter of the People's Company in 1975. Dennis Allison wrote a specification for a simple version of the BASIC programmeming language. A later instance of copyleft arose when Richard Stallman was working on a Lisp interpreter. Symbolics asked to use the Lisp interpreter, and Stallman agreed to supply them with a public domain version of his work. Symbolics extended and improved the Lisp interpreter, but when Stallman wanted access to the improvements that Symbolics had made to his interpreter, Symbolics

refused. Stallman then, in 1984, proceeded to work towards eradicating this emerging behaviour and culture of proprietary software, which he named software hoarding.

514. Write about Copyleft License.

Copyleft licenses are a novel use of existing copyright law to ensure a work remains freely available. When an individual chooses to copyleft their work, they do so for a variety of reasons, with the general goal being to allow "hassle-free exploitation, copying and distribution of a creation or a work (and its derivates)". This is most commonly achieved by providing a license with the work. Licenses vary in a number of ways from one to the next, but there are some general provisions that are common among those considered to be true copyleft licenses.

Copyright licenses are sometimes referred to as "viral licenses" because any work derived from a copyleft work must themselves be copyleft when distributed. Copyleft license indicates that every owner of the work has the right to use it without limitation, (re)distribute it to any extent, and modify it in any way. Additionally, the copyright license requires that every derivation of the work also be covered under the same terms. Copyleft licenses may also include provisions to assure that the conditions of the license cannot be revoked. In the case of software, a copyleft license may require that the work, and its derivations, always be available in a format that facilitates modification. For example, it may be required that the source code for a programme be provided in a fully-accessible form. Copyleft license can be categories in to two groups.

515. What is Proprietary Software?

Commercial software is software being developed by a business which aims to make money from the use of the software. "Commercial" and "proprietary" are not the same thing! Most commercial software is proprietary, but there is commercial free software, and there is non-commercial non-free software.

516. Define Freeware.

The term “freeware” has no clear accepted definition, but it is commonly used for packages which permit redistribution but not modification (and their source code is not available). These packages are not free software, so please don’t use “freeware” to refer to free software.

517. Write about Shareware.

Shareware is a software which comes with permission for people to redistribute copies, but says that anyone who continues to use a copy is required to pay a license fee. Shareware is not free software, or even semifree. There are two reasons it is not:

For most shareware, source code is not available; thus, you cannot modify the programme at all.

Shareware does not come with permission to make a copy and install it without paying a license fee, not even for individuals engaging in nonprofit activity.

518. Mention Some Strong Copyleft License.

GNU General Public License (Ver. 1,2,3), GNU Lesser General Public License, Mozilla Public License (MPL or MozPL), Netscape Public License (NPL), OCLC Research Public License.

519. Mention Some Permissive License.

MIT License, Berkeley Software Distribution (BSD) License (and New BSD License, Simplified BSD License), NCSA License, Apache License (Apache Software Foundation), XII License.

520. What is Lax Permissive License?

Lax permissive licenses include the XII license and the two BSD licenses. These licenses permit almost any use of the code, including distributing proprietary binaries with or without changing source code.

521. Mention Some Social Networking Services.

The current range of social networking services are available in two formats. Users’ Profiles Based and Content Based Networking Services.

Users' Profile Based Social Networking Services: These are primarily organised around members' profile pages – that mainly consist of information about an individual member, including the person's picture and details of interests, likes and dislikes etc. Bebo, Facebook and MySpace are some examples of Users' profile-based services.

Content-Based Social Networking Services: In these services, the users' profiles remain an important way of organising connections, but play a secondary role to the posting of content. Photo-sharing site Flickr is an example of this type of service. Shelfari is one of the current crop of book-focused sites, with the member's "bookshelf" being a focal point of each member's profile. Other examples of content-based communities include YouTube for video sharing and last.fm for listening music.

Beside these, White-label Social Networking Services: Most of the social networking services offer some group-building functionality, which allow users to form mini-communities within sites. Websites such as PeopleAggregator and Ning offer users the opportunity to create and join communities. Users can create their own "mini-MySpaces" small-scale social networking sites that support specific interests, events or activities. Setting up and running a social networking service increases the responsibility and liability of the creator or host for on-site activity.

522. Write about Social Cataloguing.

Social cataloguing refers to web-based applications that help users to tag and track books and other materials in their own online inventory or filling system. Primary purpose of this type of websites is the cataloguing of material owned (Books, DVDs, Music) by its members, while also building a community of users with that shared interest. Social cataloguing websites allow users to not only to publicly share their catalogued inventories but also to post reviews, commentaries and participate in discussion groups and tag or classify the items catalogued. In other words, these websites serve as a user designed interactive and shared catalogue. The examples of social cataloguing websites are librarything, Shelfari, aNobii, Bookarmy, Google Books, GoodReads etc.

523. Write about MySpace (social networking comm. tool).

If you want to go where the students are, one of the best places to find them is MySpace. Other libraries have taken advantage of this site's

calendar and blog features to improve their presence. With a little help from your IT department, you can also include custom catalog search tools.

524. Write something about Facebook (social networking comm. tool).

It is also a social media site frequented by students, Facebook is librarian friendly. You'll find a group just for librarian-centric Facebook apps, a JSTOR search, and much more. Mark Zuckerberg, inventer of Facebook intended to creat a website which emulates MYSpace but designed exclusively for students (Behrens, 2008). What followed on from there was beyond his expectations. With a tagline that states "giving people the power to share and make the world more open and connected. Facebook has 400 million active users in 2010 (Stross, 2010).What was initially created as a communication tool for students has now emerged as a powerful global marketing and communication tool. It is now used by many individuals as well as non-governmental organizations, businesses and educational institutes.

Stross (2010) attributed the popularity of Facebook to the network effect. He stated that "businesses, non-profits, government offices and celebrities use facebbok pages to disseminate information, forming an ever-growing simulacrum of the web within facebook's walls. Network effects are at work here, too: users attractwell-known names, which, in turn draw more users to Facebook". Such is the mechanics of Facebook that it is fast gaining popularity amongst college students and as Mathews (2006) aptly puts it "but among college students, Facebook is king". With this in mind, academic libraries are now utilising Facebook not only to communicate with their users but to disseminate information to them. Facebook is seen by many librarians as a tool to market their library products and services. The literature provides numerous examples of university libraries well on their way, such as the Georgia Institute of Technology (Mathews, 2006), Franklin D.Schurz Library at Indiana University South Bend (Kwong, 2007), Valdosta State University (Landis, 2007), Duke University Law Library (Behrens, 2008), Mississippi State University Libraries (Powers, Schmidt and Clay, 2008) and Rutgers University Library (Glazer, 2009). Currently, the Facebook's search engine returns more than 500 Facebook pages for the phrase "university library".

525. Write about Meebo (social networking comm. tool).

Network and assist students on Meebo, no matter what IM client they use. You can even embed a chat screen on any webpage using this tutorial.

526. Write about LinkedIn (social networking comm. tool).

This social networking site for professionals is a great way to get library patrons connected with the people that can help them find information. Whether that's you, faculty, authors, historians, or other sources, they can find them in your LinkedIn network.

527. Write about Twitter (social networking comm. tool).

Use Twitter, a microblogging application, to keep staff and patrons updated on daily activities, like frequently updated collections, or even just scheduling.

528. Write about Flickr (social networking distribution tool).

This image distribution tool is a great way to share new image collections. You can create image sets with metadata, as well as take advantage of the many plugins available for Flickr users. Flickr users can also help gather missing information about images.

529. Write about YouTube (social networking distribution tool).

Spread the word about library events, share citizen journalism, and more on YouTube. You can see how other libraries are using YouTube by checking out the youtubeandlibraries wiki.

530. Write about TeacherTube (social networking distribution tool).

TeacherTube, which is a YouTube for teachers, presents an excellent opportunity for instructor-librarian collaboration. Instructors can guide students to helpful library resources, and vice versa.

531. Write about Second Life (social networking distribution tool).

On Second Life, you can create a virtual library with streamed media, discussions, classes, and more. For a good example of a Second Life library, visit the murdochsecondlife wiki.

532. Write about Wikipedia (social networking distribution tool).

Wikipedia is an online encyclopedia updated by users. You can use this tool to share your knowledge by editing, or simply point library patrons in the right direction.

533. Write about PBwiki (social networking distribution tool).

PBwiki is the world's largest provider of hosted business and educational wikis. It encourages collaboration from students, a way to showcase work, and offers a central gathering point for information. PBwiki offers controlled access, so you can give some editing privileges, while others can only read.

534. Write about Footnote (social networking distribution tool).

On Footnote, you'll get access to original historical documents, and can update them with your own content and insights. You can even find personal anecdotes and experiences you won't find in reference books.

535. Write about Community Walk (social networking distribution tool).

Community Walk offers a geographical way to interpret text and events. You can use it for instruction, such as showing someone where to find a book, or walk them through a historical and geographical timeline.

536. Write about SlideShare (social networking distribution tool).

Encourage faculty, staff, and students to share their slideshow presentations for the greater community to access community to access on SlideShare. It's a great way to disseminate information.

537. Write about Digg (social networking distribution tool).

Digg is a great way to find useful content that you wouldn't come across in traditional ways. Find stories here, then share them with others using Digg's blog function.

538. Write about StumbleUpon (social networking distribution tool).

Another way to find great content is with StumbleUpon. You can channel surf the Internet to find useful content, research tools, and more.

539. Write about Daft Doggy (social networking distribution tool).

If you've found a particularly good resource, you can use DaftDoggy to create a website tour with instructions, pointing out useful references and items of note.

540. Write about aNobil (social networking organization tool).

This site for book lovers is a place to share reviews and recommendations. You can also take advantage of due date alerts, lending, and discussions.

541. Write about Del.icio.us (social networking organization tool).

With this social bookmarking tool, you can create a custom directory for library patrons. Teach them to search by your tags, and it will be easy to find useful Internet research links.

542. Write about Netvibes (social networking organization tool).

In Netvibes' new Ginger beta, you can create a public page that can be viewed by anyone. You can use it to help guide patrons to helpful Internet sources, news feeds, and more. It can be integrated with many of the tools like Flickr and library blogs.

543. Write about Connotea (social networking organization tool).

Connotea is a great reference tool, allowing you to save and organize reference links and share them with others. They can be accessed from any computer and offer integration with lots of other tools.

544. Write about LibraryThing (social networking organization tool).

This social cataloguing network is great for librarians, and you can catalog along with Amazon, the Library of Congress, and more than 200 other libraries around the world. You'll get recommendations and easy tagging as well.

545. Write about lib.rario.us (social networking organization tool).

Another social cataloguing site, you can put media such as books, CDs, and journals on display for easy access and tracking.

546. Write about Microblogging or Tumblelogging.

Microblogs were known as Tumblelogs. Microblogging is a web service, which is a combination of blogging and instant messaging that allows the user to broadcast short messages to other users of the service. The appeal of microblogging is both its immediacy and portability. Microblogging allows user to write brief text updates (usually less than 200 characters), publish them and viewed by anyone or restricted to a group selected by the user. Microblog posts can be written or received with a variety of computing devices, including cell phones. Mostly microblog broadcasts are posted as text, but some microblogging services allow video or audio posts too e.g. twitter, pownce and tumblr etc.

547. Meaning of Social Search/Social Search Engine.

Social Search means finding information about real people on Internet. Web search provides a revolutionary way to find any information on the web. Similarly, Social Search is a new way to find online information about people. In both cases, intelligent search indexing is an improvement over the manual process of following links or browsing through directories. Social Search Engines are a great way to search across many social networking sites at the same time. They make it easy to find public records, addresses, background, criminal records, and business ownership,

new friends, old friends, people to network with, people with the same interests and many more. There are various kinds of social search engines providing different kinds of information. On the basis of the information covered/provided Social Search Engines are divided into four categories: White Pages, People Finders, Public Records and Social Media. White Pages are used to find addresses and phone numbers for people e.g. Whitepages.com, Whowhere and The Ultimate White Pages etc. People Finders can be used to find basic information about anyone e.g. Wink, ZabaSearch, LexisNexis and Spock etc. Public Records can be used to look up criminal records, marriage certificates, business information, and more e.g. PublicRecordsNow, PeopleFinders, Background Check Gateway and Government Registry etc. and Social Media tools can be used to find and connect with people online e.g.Facebook, LinkedIn and Classmates etc.

548. Write about Social Mapping.

Social mapping tool is very useful for generating maps for different uses. User can create, share, annotate and publish the personal and collaborative maps e.g. location of institute, path to institution, venue of functions etc. This service is offered by various social mapping websites viz. Umapper, CommunityWalk, Wayfaring and Platial. The services are almost similar and but there are some differences in their features and usability.

549. Meaning of Screencasting.

Screencast is a movie that captures the display from a computer screen along with someone talking about what's being shown. This might take the form of a formal narrated Powerpoint presentation, a software demo, or an informal walk-through of a particular concept. Screencasts are powerful tools to demonstrate technical tasks, or to illustrate technical concepts that are hard to explain in words. The video and audio components can make a topic more understanding than written instructions or static images. Screencasts can be easily distributed via blog posts and RSS feeds. Screen capture software applications can be used to create a screencast. AviScreen, CamStudio, Jing and Wink are free software to record screencast.

550. Write about Human Resource Development in Library and Information Science.

To develop trained human resource in the field of Library and Information Science rests equally with libraries as that of Library and Information Science departments. As it is working knowledge of a person which is more required in the applied aspect of subject rather a simply learned person. To have a trained library professional to suit the requirement of 21st century libraries need is to expose them to all modern electronic gadgets, equipments, so as to meet out immediate future requirements. We have to devise our curriculum for LIS students keeping in view the prospects of present as well as potential market. By organizing conferences, seminars, workshops, internship courses, lectures, refresher courses, orientation courses, and some other continuing education methods help in developing efficient and trained human resource.

551. Write about Library Blog.

A blog can be used to disseminate information about new materials, services, databases, etc. A library blog helps to broadcast useful information to end-users, in order to promote awareness of library programmes and services in digital environment. Library blogs provide very fast and simple way to post content online. Through the library blogs librarian motivates users to take advantages of library resources more frequently and more effectively. Library blog is very helpful tool to create awareness amongst the users especially in the costly resources like online databases. They are risk free and generally cause no harm. Through the library blogs users can enter their thoughts, ideas and suggestions about the library resources and its services. Through them librarian can also know the users' views, ideas and thinking about library resources and services. Through the library blogs users can enter their thoughts, ideas and suggestions about the library resources and its services. Through them librarian can also know the users' views, ideas and thinking about library resources and services and its utility. A library blog entry might contain text, images or links to other blogs and web page. Any library user can publish a blog post easily and cheaply through a web interface, and any reader can place a comment on a blog post. Use of blogs has been increasing everyday in libraries.

552. Mention the Issues in Creation of Library Blog.

Bair and Cranston (2006) identified following issues for the successful Library Blog:

(i) Scope/Vision: Decide on the focal point of a library blog, which includes specific resources and services
(ii) Audience: Identifying primary and secondary audience
(iii) Highest Priorities: Subject heading is assigned to the available library resources using i library classification system
(iv) Sources for New Content: Define the source of content whether it is coming from public blog, websites, open source resources
(v) Time: Supporting tools are used on fixed time frame
(vi) Ideas for Launching and Advertising: The proper time in the academic environment is important, whenever planning for launcing any resources in a blog
(vii) Evaluation Criteria: Surveying the targeted audience, monitoring the regular visitors, analyzing the suggestions is important
(viii) Editorial Guidelines: Try to adopt any of the popular journal publication guidelines and standards
(ix) Publication Guidelines: Maintain the regular updating of a library blog through proper guidelines for content publication
(x) Measuring Success: Measurement is based of the feedback given by the patrons in the form of comments and suggestion.

553. Mention the Basic Tips for Creation of Library Blog.

Some basic tips for creation of a library blog are given below:

(i) Post regularly, but don't post if you have nothing worth posting about
(ii) Update regularly: the content should be updated regularly
(iii) Use a clean and simple theme if at all possible
(iv) Enjoy blog for fun, comment on other people's blog in a civilized manner
(v) Before uploading the information, judge the type of users and their area of interest
(vi) Be swift: design and execute every day

(vii) Stay focused: content should focus the requirement of users and be consistent
(viii) Be a good guest
(ix) Be diverse: fulfils the needs of diverse user community

554. Mention the Maintenance and Measurement of Library Blog.

Launching the library blog on a strategic platform is not enough. The maintenance and measurement of blog is more important than having it.

(i) Regular Posting: Blogging is conservation. Therefore, organization should provide posting as set time period. Usually, frequency of posting depends upon the visitors flow into the Library Blog and Strength or need of the organiation
(ii) Freshness: The library blog can be achieved only when the responders are involved heart soul. The involvements of responders depend upon the fresh discussion subjects, content and materials.
(iii) Prompt Listening: The library blog responders ask many relevant and irrelevant questions and ask for quick actions from the organization. Therefore, the organization should listen in-depth and take quick action regarding services and other information.
(iv) Humanizing Efforts: Blogging communities of a library blog are emotional ones, though they are attached with the blog. Therefore the responses from the organization should have a human face from all perspectives.
(v) Benchmarking: There is inborn competition among various industry blogs. The organizations should also monitor other blogs and its others features also vis-a-vis their own blogs in terms of unique visitors, and other terrains of awareness.
(vi) Feedback: It is essential to take the help of experts for correct feedback of maintaining the library blog.
(vii) Frequent Monitoring: The reviewing committee of the library blog should adapt a fixed frequency of monitoring other relevant blogs as part of benchmarking.
(viii) Meeting the Goals: Time to time, the organization should review that the set goals are being met by the library blog or not. In case

the goals are not being met, the organization should go for the root cause and should take corrective measures.

555. How Blogs Benefited the Library Profession?

In the library Profession Blogs are useful for providing right information in the right time to both librarians and library users. The following benefits are given below:

(i) Enhancement and Progress of Library Services: Blogs gives update information about any changes and updates in library policy and upcoming programmes.

(ii) Impressive Image: Maintains Blogs gives an indirect impact and the image of the libraries and librarians with technological advancement.

(iii) Library Co-operation: Blogs can be used as a way of sharing resources and information among colleagues and fellow librarians. Collaborative Blogging allows a community of people with similar interest to contribute to a collective beneficial resource. It also helps to build a community who shares common interests. It also helps to build a community who shares common interests. It also helps in consortia formation.

(iv) Providing Information Support: The Blog fills in and extends information outlined in existing library information structures.

(v) Building and Connecting Knowledge: Blogs are often highly structured static, and/or inflexible. Blogs are free flowing, continuous and dynamic.

(vi) Providing Flexible Information: In the most basic sense, Blogs are dynamic listings of Frequently Asked Questions, with a multitude of functionality and uses.

556. Mention the identity management of libraries.

Rapidly increasing dependence on e-resources (now surpassing the use print-on-paper resources in many cases for the three main subscribed materials categories of books, periodicals and frequently used reference sources) and the widespread adoption of Federated Access Management (FAM) has highlighted the need for improved practices of Identity Management (IdM) by libraries (or the institutions of which they are a

part); and the recognition that different rights of access to individual e-resources need to be applied to distinguish different categories of user. This may be dictated by commercial license terms or the economic motives to negotiate lower license costs by restricting access to particular groups (and number of individual users) that actually need it, rather than blanket licenses covering the entire normal staff/student population of a whole university. Some resources may be relevant only to teaching staff or researchers (not students) and some may be relevant only to staff or students in a particular discipline or department. Some relatively costly resources (for example frequently-updated legal reference materials) may only be of use to very small numbers of students and staff, but may be licensed based on the entire nominal university size.

557. What is Open Content? Mention its features.

Open content is an alternative paradigmto the use of copyright to create monopolies; rather than leading to monopoly, open content facilities the democratization of knowledge.

Features of open content are as follows:

(i) Any media can be open content, from text and pictures to video and sound

(ii) Something that is open content may be free of charge, but it does not have to be.

558. Why we go for Open Source?

1. Lower cost for rich functionality
2. Reduction of risk to the institution

559. RDBMS Basic.

Relational Data Base Management System. Overall database management of all types of data through relation between directory, folder and sub-folder i.e., whole-part, part-whole, whole-whole and part-part relationship. It avoids data redundancy. DBMS is the set of programmes and procedures, through which we can prepare and edit the tables and retrieve the information contents in the tables.

RDBMS is the relation between the different keys belongs to in the set of tables.

560. What is the difference between CCF and MARC?

MARC deals with only bibliographic records not factual records like patents, standards (limited profile of projects for human and institutional resources) but CCF deals with all types of bibliographic and factual records.

561. What are the application of Library Automation?

The housekeeping operations in a library that have been automated successfully are: 1. Acquisition of Books, 2. Cataloguing, 3. Serials Control, 4. Circulation, 5. Administration and 6. OPAC.

562. What are the lacunas of CDC in IT evaluation?

In the latest report of CDC does not recommend FRBR model and fails to include latest theory of IT and time gap between IT theory teaching and its practical.

563. After how many times MARC 21 new edition was being published?

After 6 months MARC21 (LC) has been published. In every new edition newer tag was added. [There is no fixed time of publishing of new edition of CCF (UNESCO PGI Programme 1992].

564. Mention some Automation software.

1. CDS/ISIS, 2. Libsys, 3. SOUL, 4. Access, 5. Access in Library Software, 6. Agent™, 7. ALEPH 500, 8. Altarama Systems & Services, 9. Amlib: Library Management System, 10. Athena, 11. Aurora Library System, 12. AutoLib, 13. Automated Cartridge System Library Software (ACSLSManager™), 14. Biblioschool, 15. BiblioMondo, 16. Book Organiser Deluxe 2.0, 17. Book Systems, 18. BOOKMARK.

565. Which software is suitable for cataloguing of Bengali books and journals?

KOHA is suitable for cataloguing of Bengali books.

566. What is Library Network?

Library network is the network between some libraries of same nature within a campus.

570. Mention some Open Source softwares.

Koha, NewGenLIb (Library Management Software); DSpace, GSDL (Digital Library software).

571. What is Information Network?

Information network is the information sharing or resource sharing within the libraries or information centres.

572. What are the objectives of Library Network?

The objectives of library network are: 1. maximum information availability of the library, 2. avoids duplicity, 3. cost effectiveness.

573. What is Internet?

Internet is the network of networks. Through internet, library can acquire all types of necessary information from various websites so that library can fulfil the needs of users without delay.

574. Mention the feasibility of computerisation in India.

1. It is a costly effort, 2. Electricity problems, 3. Lack of computer literacy, 4. Decreasing the employment.

575. What is the nature of digital library architecture?

Integrated Access interface from the different environment.

576. Mention some teaching methods.

1. Lecture Method, 2. Seminar Method, 3. Tutorial Method, 4. Group Discussion, 5. Workshop Method, 6. Programme method.

577. What is the nature of BSO?

Broad System of Ordering (BSO) is a switching language between DDC to CC.

578. Mention the LIS evaluation methods.

1. Continuous evaluation, 2. Assignment, 3. Practical.

579. Mention the list of books authored by Dr. S.R.Ranganathan.

1. Prolegomena to Library Classification, 2. Library Manual, 3. Library Cataloguing, 4. Library Administration, 5. Colon Classification, 6. Classified Catalogue Code.

580. Whether Dr. Ranganathan was given any idea about computer?

Ranganathan was given the idea of 'Docfinder' in 1960s in the 'Slant to Documentation' journal which was purely algorithm based and it is still relevant in a certain extent.

581. Mention some recent books on LIS.

- Intellectual organization of information/Venonious
- Modern Information Retrieval/G.G.Choudhury
- TQM application in libraries/Stevenson
- Sense making theory in determining information need/Brenda Dervin
- Online nexus of public library system/Joan Durans

582. Mention some recent books on IT.

- How to build a Digital Library/Ian Witten
- The Electronic Library/Jennifer Rowl
- Library Automation in Theory and Practice/L.J.Haravu

583. Mention some Bengali Book Selection Tool.

1. Kraylavya Bangla Granther Bishayanug Talika (State Central Library)
2. Bangla Granthapanji (Central Reference Library)
3. Sishu Sahityer Granthapanji (Bani Basu)
4. Boi-er Desh (Ananda Publishers)
5. Desh (Ananda Publishers)

584. In which institute TQM applied?

Harvard College Library, Oregon State University Library, Case Western Reserve University.

585. What is online journal?

Journal which is available through library consortia with the help of internet.

586. What is online source?

Internet based source which is available through web browser.

587. What is offline source?

Source which is not available through internet.

588. Is it possible to avail the library resources of a particular library sitting on another area?

Through library consortia or resource sharing we can avail the resources of a particular library sitting on another library.

589. Latest edition of Public Library Manifesto was published in which year?

2001.

590. Mention one Book Review Periodical.

Indian Book Review Chronicle.

591. Mention the book on Classification Scheme in Bengali.

Prachya Bargikaran by Satish Ch. Guha.

592. Mention the book on Subject Heading List in Bengali.

Subject Heading List by Krishnamoy Bhattacharya.

593. Mention the book on the application of DDC in Indian subjects.

Extension of DDC of Indian subjects/Lt. Subodh Mukhopadhyay.

594. Mention the book on DDC in Bengali.

Dashamik Bargikaran by Prabhat Mukhopadhyay.

595. Mention the book on DDC in Hindi.

P.N.Gour.

596. How many volumes in DDC22.

4 Vols.

597. What is the name of electronic version of DDC?

Web DDC (Forest Press, Rs. 5,000.00).

598. Mention the book on cataloguing of Bengali books.

Binod Behari Das, Shrabana Ghosh and Prafulla Pal.

599. Mention the oldest public library in India.

Rishi Raja Rajnarayan Basu Smriti Pathagar (Midnapore).

600. Mention the modified LIS Syllabus in the age of ICT.

BLIS: 1. 1. IT, 2. Cataloguing, Classification, Documentation (inc. indexing) [core subject], 3. Management, 4. Statistical Application (Scientometrics & Informatics), 5. Information Science, 6. Information Society, 7. Collection Development on Indian publishing.

MLIS: 1. Information Communication and Society, 2. Information Resources & Materials, 3. Information Retrievals 1, 4. Information Retrievals 2, 5. Management, 6. IT Theory, 7. IT Prac., 8. Dissertation.

601. Mention the full form of URL.

Uniform Resource Locator.

602. What is Catalogue?

List of documents in a library or its collection forming a portion of it (kata – by/ according to; logos – word/order/reason).

603. What is Authority?

Authority implies a person to do something about policy making.

604. What is Committee?

A body consisting of certain persons which is assigned a particular job executes them.

605. What is Pamphlet?

Pamphlet is a document consisting below 49 pages.

606. What are Incunabula?

Books published before 1500 A.D. generally lacks title page are called incunabula.

607. What is Colophon?

In case of incunabula the name of the book, place of publication, date, etc. were printed at the end of the book.

608. On which day 'Library Day' is celebrated every year?

12th August.

609. What are the differences between CAS and SDI?

Sl. No.	SDI	CAS
1	It supplies all sorts of current information	It supplies pinpointed current information.
2	User himself can collect required information	Library personnel help the user to collect required information.

610. What is Information Management?

Information management is the efficient and effective co-ordination of information from external and internal sources.

611. What is Phoenix Schedule?

Phoenix schedule is a completely new development of a schedule for a specific discipline.

612. What is Unicode?

Unicode is a universal character encoding standard used for representation of text for computer processing.

613. What do you mean by Relative Index?

The index is called relative because it shows a term and its various aspects in relation to one another.

614. Why DDC uses zero?

For superfluity/easy expansion/easy interpolation of isolates DDC uses zero.

615. What should be the strategies for computerization?

1. Trained manpower development;
2. To assess the users demand regarding the information service;
3. Creation of database and decision regarding data entry i.e., data entry from current stock or data entry as per Accession Register;
4. Decision regarding automation through in-house software or commercial software

616. What is the necessity of Library Automation?

For efficient, effective, speedy and accurate information service to the user in the age of information explosion library automation is very much important.

617. How we apply TQM in libraries?

Understanding the customer → Assess the customer needs → Strategic plan for arrangement of proper information service.

618. Discuss the application of Ranganathan's canon of cataloguing on FRBR model.

FRBR offers us a fresh perspective on the structure and relationships of bibliographic and authority records, and also a more precise vocabulary to help future cataloguing rule makers and system designers in meeting user needs. Before FRBR our cataloguing rules tended to be very unclear about using the words "work," "edition," or "item." Even in everyday language, we tend to say a "book" when we may actually mean several things.

For example, when we say "book" to describe a physical object that has paper pages and a binding and can sometimes be used to prop open a door or hold up a table leg, FRBR calls this an "item." → <A single exemplar of a manifestation>.

When we say "book" we also may mean a "publication" as when we go to a bookstore to purchase a book. We may know its ISBN but the particular copy does not matter as long as it's in good condition and not missing pages. FRBR calls this a "manifestation." → <The physical embodiment of an expression of a work>When we say "book" as in 'who translated that book,' we may have a particular text in mind and a specific language. FRBR calls this an "expression." → <The intellectual or artistic realisation of a work> When we say "book" as in 'who wrote that book,' we could mean a higher level of abstraction, the conceptual content that underlies all of the linguistic versions, the story being told in the book, the ideas in a person's head for the book. FRBR calls this a "work." → <A distinct intellectual or artistic creation>.

619. How we manage the information in academic library?

After acquisition and classifying the library material, we have to enter the materials into the book and journal database and by which users can easily access the information as well as we manage the information in academic library.

620. Where you can find the name of Prof. M. S. Swaminathan?

India Who's Who.

621. Mention the features of Koha 3.0.

Koha 3.0has much unique quality as follows:

1 OPAC

(i) Library's own holdings of print and electronic resources;

(ii) Federated searching of the catalogues of partner libraries

(iii) Federated searching of open access and subscription e-resources, including

(iv) Simultaneous management of members' log-in to their account and

(v) E-subscriptions, and Athens authentication;

(vi) Clustering of search results; and

(vii) Readers can save searches, set up alerts, create RSS feeds etc. to their profile when logged in

2 Cataloguing: compatibility

(i) MARC21

(ii) Z39.50, XML; and

(iii) Ability to link to locally and externally hosted online documents in a range of formats.

3 Circulation

(i) Reader data to be bulk-imported from stakeholder organizations;

(ii) Members' data to be exported for card printing;

(iii) RFID support

(iv) Support for self-issue machines (Standard Interface Protocol <SIP2> or NISO)

(v) Circulation Interchange Protocol

(vi) Administration of fines and courtesy/overdue notices

4 Acquisition and Budget Management

(i) Communication with suppliers' databases for books and journals (Electronic Data Interchange <EDI>)

(ii) Management of binding

(iii) Support for multiple budgets;

(iv) Support for different ownership of collections; and

(v) Management of library income from fines and sales

5 Consortium Functionality

(i) LMS installation to support multiple independent libraries

(ii) Hardware and operating system independent browser based solution preferred

6 Hosting

(i) Both local and remote hosting options can be considered

7 Impact on Staff

(i) System to be user-friendly and require minimum training and expertise.

622. Explain the features of DSpace.

Some important features of DSpace are:

(i) DSpace captures digital material directly from the creators
(ii) Allows descriptive, technical, and rights metadata
(iii) Searches metadata & full text
(iv) Delivers content over the web
(v) Content in supported formats for long term preservation

623. Distinguish between explicit knowledge and tacit knowledge.

Explicit Knowledge	**Tacit Knowledge**
1. It is formal and systematic.	1.It is informal and unsystematic.
2. It can be articulated in formal languages including grammatical statements, mathematical expressions, specifications, manuals	2. It can not be articulated.
3. Articulated knowledge, formalised by way of speech, text, visual graphics	3. There is no question of articulation.
4. Easily communicated and shared, in product specifications or a scientific formula or a computer programme.	4. Communication/transfer of knowledge is costly and limits the reach and speed of knowledge dissemination within organization.
5. Collecting and synthesizing information and opinions from different parts.	5.Knowledge include individual employee's expertise, memories, values and beliefs.
6. It is not visible nor management a challenge.	6.It is visible.

624. How categorization of knowledge help knowledge management?

It is useful to be able to identify and categorize types of knowledge as it may help to indicate which of the categories are more amenable to management than others.

625. What are the two different types of knowledge by Nonaka?

Two different types of knowledge as suggested by Nonaka are explicit knowledge and tacit knowledge.

626. How can explicit knowledge be articulated?

Explicit knowledge can be articulated in formal language including grammatical statements, mathematical expressions, specifications, manuals, and so forth.

627. What are the objectives of qualitative research?

The objectives of qualitative research are to discover, describe and analyse the complexities of common phenomena through observation and involvement in a research setting.

628. Qualitative research seeks to understand a particular social phenomena in its natural setting. Explain.

The social phenomena to be studied are those occurring within context of information services so qualitative research seeks to understand a particular social phenomena.

629. What is the role of qualitative research?

The role of qualitative research to scrutinize commonplace occurances because when observed for prolonged periods, common phenomena can reveal remarkable levels of complexity.

630. Why commonplace occurances are important for research?

Common phenomena can reveal remarkable levels of complexity so commonplace occurances are important for research.

631. What does the researcher do in the case of failure?

The researcher is waiting for assistance from one of the archivists, or he may be simply bored with his research and thinking about taking a break.

632. Explain why planning is necessary?

Planning saves time. Time is a critical factor in any job so planning is necessary.

633. Describe the significance of time in planning.

As both developing plans and carrying out activities do take time – often a great deal of time but through planning we can save time.

634. What kind of environment is essential for handling different problems in libraries?

An environment in which social, political, economic and other pressures fluctuate unpredictably requires that libraries plan well in order to maintain themselves as stable organizations is essential for handling.

635. How could American libraries combat their difficult situation in the 1960s?

Efforts to carry out long-range planning and investigations of alternative futures (good and bad) and social indicators to combat the difficult situation of American libraries in the 1960s.

636. Explain why librarian requires to re-examine library objectives from time to time.

A library faces the possibility that its "real work" – its day-to-day operations – will come to dominate the organization at the expense of its long range objectives so librarian requires to re-examine library objectives from time to time.

637. Why have librarians encouraged the development of electronic resources?

Librarians have encouraged the development of electronic resources that are natural fit for the web and offer library users with Internet capability the freedom to access certain materials 24x7 from anywhere in the world.

638. What is the policy that publishers will stick to even if they are not clear about economics of e-publishing?

Publishers are not wanting revenues and profit margins to increase, have on the whole been flexible in their approaches.

639. Why publishers are flexible in pricing of e-literature?

The publishers believing that they see the light at the end of the tunnel, have begun to demand relief from the incessant and often exorbitant price increasesfor books and journals.

640. Which is the solution to the price problem that acceptable to both the librarians and publishers?

By banding together is consortia and even in an international consortium of consortia, librarians and publishers can exercise some control or at least influence over what they pay for e-journals and e-reference works – indexes, abstracts, encyclopaedias, dictionaries etc.

641. Which phenomenon is likely to go in favour of publishers in the future?

With the increasing pressure for distance education and the concomitant need for library support from a distance, there is a strong push for e-books and not just text books.

642. What constitutes information science according to Rayward?

According to Rayward, information science as a distinct discipline emerged from part of library science and part of computer science.

643. What is the range of related subjects on which a person interested in the history of Information Science must draw from?

The interdisciplinary subject information science need to draw a range of related subjects as the history of science and technology, the history of pricing and publishing and the history of information institutions such as libraries, archives and museum.

644. Comment on the statement that, "information science as a field was shaped by things from library and computer science.

As the problems of treatment by information science have come from library science and computer science.

645. Does computer science influence the understanding of the concept?

Yes, computer science influenced on what information is must to understand the concept.

646. Does the study of library science and computer science help in the treatment of problems by information science?

Yes, the study of library science and computer science help in the treatment of problems by information science.

647. Which are the three basic elements of manmade environment?

Three basic elements of manmade environment are matter, energy and information.

648. How are the three elements related to one another?

Information science is the pattern of organization of matter and energy (whose supply and consumption is finite without endangering the survival of species) has a potentially infinite supply.

649. Which are the different areas of investment in the age of information?

In the age of information, different areas of investment are in the production of information (through R&D) and in widespread distribution of information (through education).

650. How had the post industrial society emerged?

The value of continued expansion in our capacity to produce material goods. The shift in emphasis from material goods to services had emerged our society to post industrial society.

651. What is the role of information in a society?

The role of information in a society concerning the production and distribution of information and the technological infrastructure for information storage and transmission.

652. As a manager how will you encourage original thinking among your staff?

As a manager one way of encouraging original thinking is to increase decentraliation of decision making and delegation of authority. If fails, feedback from all levels and peer recognition will increase, which will enhance the sense of purpose for the staff.

653. Explain how decentralization helps for achieving satisfactory results.

Decentralization helps for achieving satisfactory results through more interdepartmental contact and communication. Interdepartmental communication may result in the discovery of a new angle on a task to be performed or a problem to be resolved.

654. Describe why large organisations alone concentrate on research activities.

Large organizations may provide greater challenge and require less conformity so they concentrate on research activities.

655. What can small organisations do to encourage creative thinking?

Reading material on creativity and its managerial applications is of utmost importance to encourage creative thinking in small organisation.

656. Explain the significance of the role of reading material in creative thinking.

Journals and conferences take all the mental stimulation possible in such a situation to keep up with professional standards and to continue personal creative growth.

657. Explain the two periods in the age of computers in the library.

The two periods in the age of computers in the library are the use of computers for library housekeeping operation (e.g.cataloguing, serial control, circulation) and online searching and the second is library digitization.

658. Why is the library digitization in a muddled state?

Library digitization in a muddled state and has an unpredictable future because it has built on the very considerable achievements of the library, automation movement but has not carried on that movement's commitment to the computer as a tool.

659. What is the nature of web based catalogue?

Web based catalogue are in many ways inferior not only to the first generation of OPACs but also to a well maintained card catalogue.

660. What message do you derive from the paragraph as far as use of technology in the library is concerned?

When technology ceases to be a means to an end (library service) and becomes an end in itself?

661. How much recorded knowledge is available on the web as compared to the total amount of research that is conducted?

Only a minute percentage of world's recorded knowledge is available on the web as compared to the total amount of research that is conducted.

662. What is wisdom?

Wisdom is a state of the human mind characterized by profound understanding and deep insight.

663. What are the factors that contribute to wisdom?

The factors are the sense of proportion, the capacities to take account of all the important factors associated with a problem and understand its weightage.

664. What is the relationship between wisdom and knowledge?

During the initial stages of progression from knowledge to wisdom, an individual is concerned only about his own physical condition.

665. What is the individual and social use of wisdom?

It is essential in determining the choice of ends to be pursued and in the process assure of liberation from personal prejudice. The essence of it lies in viewing the world with impartiality and thereby contributing to the growth of individual and society.

666. How can wisdom be taught?

Wisdom can be taught with the help of larger intellectual element than has been customary in what is been thought of as moral instruction.

667. Explain the term 'Technological Gatekeeper'?

This mode is both oral as well as written and helpful for community of scientists or research scholars working in small groups. This is a source of informal communication channel.

668. What are the seven lamps of professional ethics?

Librarianship is a profession. Service of mankind is its motto. It is not a business and those who entertain mercenary outlook and habits may not be fit for this emulated profession. The worth 'ethics' is derived from ethas which means custom or character. Ethics of librarianship, an essential element of library profession, denotes the conduct and behaviours of those who adopt the profession. A librarian is called the friend, philosopher and guide of the uninitiated and the scholar alike. As a duty of librarian, he should follow the second law of library science. It means librarian should try to provide necessary materials to the users.

Seven lamps of the professional ethics of librarianship are as follow:

(i) Impersonal book selection: Librarian should selects the book as per the demand of the students, teachers or scholars. Biasness is not fit for this profession. He should expend the every amount of the budget for the necessary books not for others.

(ii) Service before self: He/she should serve the users community with full effort. His motto is to serve the users first then to think about himself/herself.

(iii) Split mind: Library professional's mind should be broad.

(iv) Sympathetic behaviour: Library professionals should behave politely and sympathetically to attract the users in the library. This is the age of Information and Communication Technology (ICT), if the librarian/library professionals behave harshly/badly then users will depend more on Internet rather than using library.

(v) Tact: Librarians/library professionals should act tactfully to manage the changed situation of automated library and information service.

(vi) Industries: Librarians should be engaged to serve each and every need of the users.

(vii) Scholarship: Librarians should maintain the high level of information service to satisfy all types of users.

669. What is Intute? Explain.

Introduction

Intute is a free Web service aimed at students, teachers, and researchers in UK further education and higher education. Intute provides access to online resources, via a large database of resources. Each resource is reviewed by an academic specialist in the subject, who writes a short review of between 100 to 200 words, and describes via various metadata fields (such as which subject discipline(s) it will be useful to) what type of resource it is, who created it, who its intended audience is, what time-period or geographical area the resource covers, and so on. In July 2010 Intute provided 123,519 records.

History

Intute was formed in July 2006 after the merger of the eight semi-autonomous "hubs" that formed the Resource Discovery Network (RDN). These hubs each served particular academic disciplines:

- Altis - Hospitality, leisure, sport and tourism
- Artifact - Arts and creative industries
- Biome - Health and life sciences
- EEVL - Engineering, mathematics, and computing
- GEsource - Geography and the environment
- Humbul - Humanities
- PSIgate - Physical sciences
- SOSIG - Social sciences

The restructuring and rebranding was undertaken to create a service with a more uniform identity and appearance, better cross-searching facilities, and more focused technical and management teams. As part of the restructuring, the eight RDN hubs were initially reorganised into four subject groups. This process also incorporated the Virtual Training Suite, a series of continually updated, free online Internet training tutorials for over 65 subject areas.

The Intute service was geographically distributed, with staff based at several UK universities.

- University of Birmingham
- University of Bristol
- Heriot-Watt University
- University of Manchester
- Manchester Metropolitan University
- University of Nottingham
- University of Oxford
- University of Nottingham
- University of Oxford

In July 2010, funding for Intute was significantly reduced and the Consortium was disbanded. Intute is now wholly maintained by Mimas, The University of Manchester, and the Virtual Training Suite is maintained and developed by the Institute for Learning and Research Technology (ILRT) at the University of Bristol.

Funding

Intute is funded by the Joint Information Systems Committee (JISC). Some of the subject groups received funding from the Arts and Humanities Research Council (AHRC) and the Economic and Social Research Council (ESRC). The Wellcome Trust was a partner of Intute: Health and Life Sciences and contributed content to this section.

In 2010, funding from JISC was significantly reduced, and will cease in August 2011.

Functionality

Intute's online database may be searched or browsed using a standard Web browser. The database contains 123,519 records (July 2010). Old records are reviewed regularly by subject experts to ensure that information is as current as possible. The advanced search engine enables users to search the database by keyword, subject, or resource type, whilst the browse structure enables time period and resource type

filtering, as well as the ability to restrict searches to within particular browse headings.

Intute offers a personalisation service, "MyIntute", which enables users to tag records, export data, and construct remotely-maintained lists of resources that can be used as reading lists.

The Intute Integration tools enable users to customise and export Intute content to their own web pages or VLEs. This includes newsfeeds, an embedded search box and MyIntute (where users can save Intute content in their own online space, tag and export it). Machine-readable interfaces to the database are available using the Z39.50, Search/Retrieve Web Service and OAI-PMH protocols.

Awards

Intute was awarded the 2007 Jason Farradane Award in recognition of its outstanding work in the field of information science. The award was made on behalf of the UK eInformation Group (UKeiG), part of the Chartered Institute of Library and Information Professionals (CILIP). It is sponsored by the *Journal of Information Science*, published by SAGE Publications.

670. State the amendments brought out in 1996 to the Indian Copyright Act.

The Indian Copyright Act was first passed in 1957. A few amendments were made in 1983 & in 1984. However keeping in view with the latest developments in the field of technology, especially in the field of computers and digital technologies. The new amendment Act called the Copyright (Amendment) Act, 1994 (38 of 1994) was passed and this made Indian Copyright Law is one of the toughest in the world. This included the definition of "Computer Program" also in its ambit. It clearly explains the rights of Copyright holder, position on rentals of software, the rights of the user to make backup copies and the heavy punishment and fines on infringement of Copyright of software. It also make it illegal to make or distribute copies of copyrighted software without proper or specific authorization.

Main Changes in the new Amendment Act
Now "Literary work" includes "computer" and "computer program" also.
Offences **:**
Section. 63 of the Act provides for the provision of punishment for infringement (means any reproduction, copy or sound recording, as the case may be, made or reported in contravention of the provision of the Act.) of Copyright provided in the Act.
Section. 63A: Enhanced penalty on 2nd and subsequent convictions.
Section. 63B: Any person who knowingly makes use on a computer of an infringing copy of a computer program, shall be punished with imprisonment for a term which shall not be less than 7 days but which may be extend to 3 yrs. and with fine which shall not be less than Rupees 50,000/-, but which may extends to Rupees 2 lacs.
Section. 64 : Power of police to seize infringing copies.
Section. 65 : Any person who knowingly makes, or has in his possession, any plate for the purpose of making infringing copies of any work in which Copyright subsists is punishable with imprisonment which may extends to 2 yrs. and with fine.

The Copyright (Amendment) Act, 1996 enhanced the punishment and provides with imprisonment which may be extended for a minimum period of 6 months to maximum of 3 yrs. And with fine which not be less than Rupees 50,000/-. The court has discretion to reduce the imprisonment and fine as well, in special cases. For 2nd and subsequent convictions the minimum term of imprisonment is enhanced to 1 yr. and minimum fine to Rupees 1 lac.

671. Explain the term 'Intermediaries'.

An intermediary is a third party that offers *intermediation* services between two trading parties. The *intermediary* acts as a conduit for goods or services offered by a supplier to a consumer.

Intermediary or bridging role of libraries: "Librarianship is a bridge between two entities: people and information. Librarians consider who may need this bridge, when and where a bridge is needed, how it is to be built, how it can be best utilized. We are the planner, architect, builder, and marketer of bridges".

In the Internet/Information age role of librarians are as intermediary in search.

The librarian is an active intermediary between users and resources.

Information seeking behaviour is concerned with the integrative utilization of three basic sources: 1) People, 2) Information and 3) System. While the first two categories have to do with content, the last category has to do with the means of delivery of information. The category 'people' is concerned with relationship between the originator (author/writer), intermediary (librarian/information scientists) and user/seeker of information.

Traditionally a human intermediary is a librarian or an information specialist. Librarians are more efficient and more effective than end-users are at performing their own searches, the demand for searches by information professionals have not decreased. There will always be a role for the search intermediary.

672. What is information communication?

Communication is the process of exchange of information by way of speech, writing or signs. In this process, two or more people share their experiences which increases the knowledge of both the parties. The term communication being derived from a Latin word ''communicate' which means 'to talk together'.

Shannon and Weaver explains "The word communication can be used in a broad sense to include all the procedures by which one mind may affect another. This of course involves not only written and oral speech, but also music, the pictorial arts, the theatre, the ballet, and in fact all human behaviour."

Eldridge tries to describe it by saying "a social interaction involving the transmission of meanings through the use of symbols."

673. How ISBN is provided to a Book?

A system of numbering was developed in Great Britain as a name of Standard Book Number (SBN) in 1967. Upto 1974, SBN was used in USA. Later SBN was recognised as International Standard Book Number (ISBN) in 1970 by International Standard Organization. From 1st January 2007, 13 digits ISBN was introduced.

In India, ISBNs are provided by Education Department, Govt. of India, Bureau of Indian Standard and Raja Rammohan Roy Educational Resource Centre, Delhi.

ISBN is given to any book, consists of five parts/components viz. 1. GSI Identifier (indicates Book Publishing: 978/979) 2. Group Identifier (consists of Language and Country <code 1-7: 1- English, 2- France, 3- German, 4-Japan, 5-Russian, 7-Chinese>) 3. Publisher Identifier (within 1-7 digit number) 4. Book Identifier (within 1-6 digit number) 5. Check Digit. To change the 10 digited ISBN to 13 digit login to http://pen.loc.gov/isbncnvt.htm

Let, the ISBN of a book is 978-81-2502-881. To get the check digit follow the following procedure:

(i) Multiply the above 12 digit number by 1 and 3 respectively from left to right and add the sum.

e.g. 9x1+7x3+8x1+8x3+1x1+2x3+5x1+0x3+2x1+8x3+8x1+1x3=
9+21+8+24+1+6+5+0+2+24+8+3=111

(ii) Divide the above total by 10 (e.g. 111/10 Remainder 1.)

(iii) Subtract the remainder from 10 (So 10-1=9)

So Check digit of this ISBN is 9.

674. Mention the example of a abstracting Journal entry.

Plant Breeding Abstracts 2003 Vol.73 No.2. CAB Abstract, CABI Publishing, Wallingford, Oxon OX10 8DE, UK.

1429 BIONE, N.C.P.; ALMEDIA, L.A.DE; SEIFERT, A.L. **An *ms2* male-sterile, female-fertile soyabean sharing phenotypic expression with other *ms* mutants.** Plant Breeding (2002) 121 (4) 307-313 Berlin, Germany; Blackwell Wissenschafts-verlag GamH (En, 25 ref.) Department of Cell Biology and Genetics, State University of Maringa, 87020-900 Maringa, PR, Brazil. Email: mspagliarini@uem.br

Genetic and cytological studies …were shriveled.

675. What is Shibboleth?

The Shibboleth system is standards based, open source software package that facilitates authentication of authorised users using organization's internal identity and access management system.

676. What are the components of Shibboleth?

Shibboleth consists of two major components, i.e. Identify Provider (IDP) and Service Provider (SP) that trusts each other.

677. What is Social Web?

In 1998, the term 'Social Web' was introduced in an article by Peter Hoschka. It can be described as people interlinked and interacting with engaging content in conversational and participatory manner through the Internet. The Social Web is currently used to describe how people socialize or interact with each other through the World Wide Web.

678. What are features of Ning?

The features that one can choose from include:

- Activity: View an up-to-the miniute stream of the latest activity across your social network right on the main page. Choose from one of 50 distinct and unique themes or create your own design with custom CSS.
- Applications: Allow members to add features and functionality to their profile pages with Applications.
- Badges: You and the members of your social network can embed badges promoting your social network and media players showing off your social network's music, videos, and photos on other websites.
- Birthdays: Show when it's member birthday so that member can be congratulated.
- Blog: Blog posts are a great way for members of your social network to express themselves.
- Chat: One can participate in a live network-wide chatroom or private one-on-one chat with other members on your social network. Chat can be positioned anywhere in the centre column.

- Events: Organize events related to your social network's topic – whether or not you'll meet up in real life is up to you!
- Forum: Discuss any topic in your social network's forum.
- Groups: Allow members to organize themselves into groups, where they can meet new friends and discuss group-specific topics in the group forum.
- Music: You and the members of your social network can upload songs to express yourselves.
- Notes: The wiki-like Notes feature lets you and your administrators add pages of important information to your social network.
- Pages: Add new pages of content to your social network.
- Photos: Allow members of your social network to upload their own photos.
- Premium Services: You can add one or more of the optional premium services to extend your social network and your brand.
- RSS: Add external RSS feeds to your social network's main page.
- Text Boxes: Add anything you want to the text boxes on your social network's main page, from text to images to widgets to links.
- Videos: Allow members to upload their videos and embed videos from video services like YouTube.
- Moderation & Privacy: Choose to make your Ning Network public or private for members only. Moderate members before they join. Moderate photos, videos, groups, chat and events before they're posted. Set up multiple layers of administrators.
- Invitations & Search Engine Organization: Every Ning Network comes with a rich invitation engine for you and members to invite new members. Full Web address book and .CSV file importing. Full search engine optimization beginning with your Ning Network's information: tagline, description and keywords.

679. What is Bibliographic Coupling?

Bibliographic coupling is essentially a technique for identifying the theme of a document from its citations. With the immense potentialities of computerised information retrieval, it was felt that computerized systems could be made more productive if some method for analysis and representation of the contents of documents almost in a mechanical way, could be evolved, content analysis and its represenatation is a time

consuming and highly intellectual and skilful job. The abstractor or the indexer has to go through the text of the document. Search for alternatives for this intellectual work, which would be better suited in a completely mechanised information retrieval system, has produced quite a few interesting ideas most of which are in experimental stages. The idea of bibliographic coupling is one of them.

This idea experimented and advocated by M.M.Kessler of the Massachussets Institute of Technology may be stated briefly as follows: If between two papers P_1 and P_2, it is found that all the citations is one paper are exactly the same as the citations in the other paper, then, there is a high probability that P_1 and P_2 are not only on the same subject but quite likely they are the two versions of the same paper published in two different places.

680. What is Gazette?

Gazette is a newspaper, an official newspaper containing official announcements, appointments, legal notices, despatches etc.

681. What is Gazetter?

Gazetter is a geographical dictionary of places arranged alphabetically. It serves as a finding list for geographical places like towns, cities, oceans, rivers, lakes, mountain etc. giving about location (usually in the form of exact latitude and longitude and a brief description (such as pronounciation, population, area, historical and socio-economic information etc.).

Example: Webster's geographical dictionary, Columbia Lippincott gazetteer of the world , Stateman's yearbook world gazetteer.

682. What is Weeding out?

Weeding is removal of stock from library shelves, either for withdrawal or for moving to reserve stock or remote storage.

683. What are the difference between Library Science and Documentation?

Library Science includes book selection, library management, cataloguing, classification, reference service, bibliography etc. services.

But in Documentation there is no role of library management and book selection. Also bibliography, classification etc. plays an important role. Users' study, bibliography, indexing, bibliometry (half life theory, epidemic theory, law of scattering), translation service, reprography service, computer, telecommunication includes with Documentation.

684. Mention the year of origin.

1787 – First British Museum printed catalogue
1841 - British Museum Code (A.Panizzi's code)
1852 – Jewett's Code
1864 – Manchester Public Library code(Catalogue constructed according to Crestadoro's principles (1856) – First KWIC index
1873 – Citation Index (Frank Shepard)
1876 - Cutter Rules for Dictionary Catalogue (2nd 1889, 3rd 1891, 4th ed. 1904) & Cutter's Subject indexing (Persons vs. Country, Country vs Event, Subject vs. Country)
1881 – First LC general card catalogue begun
1897 – Volume one of Bibliotheque National catalogue published
1899 – Prusian Instructions
1899-1901 – LC (Putnam's catalogue)
1908 – Library Association/American Library Association (AA Joint code) **<Case Code>**
1911 – Systematic Indexing (Kaiser) (Concrete, Process, Thing, Place, Abstract Term)
1914 – Subject headings used in the dictionary catalogues of the LC
1923 – Sears' List of Subject Headings which was based on LC list
1927 – Kenyon Committee Report on Public Libraries in England and Wales; cmd 2868
1930 – Ranganathan's Dictionary Catalogue
1931 – Vatican code (Vatican Library)
1934 – Cutting cataloguing costs 50% (In Library Worl, 39, 1934, 179-184)
1934 – Classified Catalogue Code (S.R.Ranganathan), 6th ed. 1964.
1941 – Osborn (The crisis in cataloguing in Library Quarterly, 11(4),

1941, 393-411

1942 – ALA Code (2nd ed. 1949, 3rd ed. 1968 rewritten 1980) **<Case Code>**

1942-1946 – First LC printed catalogue published (167 vols.)

1945 – Dictionary Catalogue Code (Ranganathan)

1950 – British National Bibliography (begins publication, classified arrangement using chain procedure of subject indexing)

1950 – Farradane's Relational Indexing

1951 – LC (Introduced 'limited cataloguing' policy ceased 1964)

1951 – British Standard Institution (BS 1749: Specification for alphabetical arrangement and the filling order of numerals and symbols 1st ed. published (12th ed. 1969)

1953 – Lubetzky (cataloguing rule and principles. Very important principles – 'conditions' rather than 'cases')

1953 – Mortimer Taube's Uniterm Indexing

1954 – IFLA Working Group on the coordination of Cataloguing Principles (ICCP was to blossom from this working party)

1955 – Ranganthan's Headings and canons (Important comparative study of five codes of cataloguing rules)

1956 – First printed cards from BNB.

1956 – Filling Rule for the dictionary catalogs of the LC rewritten

1956 – LC (Cataloguing In Source experiment now Cataloguing In Publication)

1958 – KeyWord In Context (H.P.Luhn & H.Ohlman)

1959-1966 – British Museum General catalogue published in photo litho edition (263 vols.)

1960 – E.J.Coates Subject catalogues: headings and structure

1960 – Lubetzky Code of cataloguing rules in unfinished draft

1961 – First automated production of catalogue cards (The Douglas Aircraft Co. Introduces the first cataloguing application of computers, although computers had been used with post-coordinate indexing since 1950s

1961 – Science Citation Index (Eugene Garfield from Institute for Scientific Information, Philadelphia) <started from 1963>

1961 – International Conference on Cataloguing Principles, Paris

1963 – King report on automation and the LC led to MARC project

1965 – The LC National Program for Acquisition and Cataloguing (NPAC) otherwise known as the 'Shared Cataloguing Program' began

1965 – First computerization of catalogues in the UK (the public libraries of Camden and Barnet)

1966 – Brasenose conference on the automation of libraries (computer can produce a 'reactive catalogue' that it can generate from a common bibliographic store a system of catalogues that are all mutually compatible

1966 – LC (Library of Congress) Project MARC begun

1967–AACR-I (Library Association/American Library Association/Canadian Library Association. Project of LC) (based upon 'conditions of authorship' and not types of publication) **<Condition Code>**

1967 – Permuted Subject Index

1967 – Introduction of Standard Book Number in UK

1967 – Attention focussed on possibility of microform catalogues

1967- UK MARC project (BNB)

1967 – OCLC network set up

1968 – LC National Union catalogue began publication

1969 – First UK network (BLCMP)

1969 – PRECIS (Derek Austin)

1970 – Introduction of ISBN &ISSN (International Standard Organization)

1970 – Canadian rules for non-book materials

1971 – CIP was started [LC]

1971 – Introduction of International Standard Bibliographical Description (IFLA)

1971 – PRECIS (Derek Austin) first used in BNB

1973 – Library Association National Council for Educational Technology (LANCET) rules for non-book materials

1973 – Books in English first published (An ultra-microfiche bibliography based upon MARC)

1975 – British Library formed

1975 – UNESCO'S initiatives for Bibliographic Exchange Format

1977 – BLAISE goes live (British Library)

1978 – AACR-II (Library Association/American Library Association/Canadian Library Association. Project of LC & BL)

(Emphasizes integrated approach to cataloguing different library materials) **<Condition Code>**

1980 – ALA filing rules (New version of 1968 rules) (American Library Association)

1980 – BLAISE filing rules (British Library)

1980 – LC filling rules

1981 – British Library/Library of Congress/National Libraries of Canada and Australia adopted AACR-II

1981 – LC policy of 'superimposition', whereby new rules are only used if they do not lead to conflict with existing headings, to be abandoned. Replaced by 'compatible headings'

1981 – Concise AACR-II (Michael Gorman)

1982 – Compatible headings policy of LC ceases

1982 – Microcomputer applications in libraries for cataloguing and indexing becoming more widespread

1984 – CCF 1st ed. Introduced (2nd ed. 1998 in two vols. CCF/B & CCF/F)

1988 – AACR-II Revised Edition (Library Association/American Library Association/Canadian Library Association. Project of LC & BL) 1992-1995 - The IFLA Study Group on Functional Requirements for Bibliographic Records (FRBR) developed an entity relationship model as a generalized view of the bibliographic universe, intended to be independent of any cataloging code (e.g. AACR2, the German RAK [*Regeln fur die alphabetische Katalogisierung*] and RICA [*Regole Italiane di Catalogazione per Autore*] or implementation.

1993 - AACR-II 2nd Revised Edition (Library Association/American Library Association/Canadian Library Association. Project of LC & BL)

1997 – International Conference on the Principles and Future Development of AACR (organized by Joint Steering Committee (American Library Association, Australian Committee on Cataloguing, British Library, Canadian Committee on Cataloguing, Chartered Institute of Library and Information Professionals and Library of Congress)

2007 – 13 digit ISBN introduced.

2009 - Resource Description and Access (RDA) new standard which will be the successor to AACR2 (Kiorgaard & Kartus, Coyle & Hillman)

685. Mention the year of origin of the following publications.

Encyclopaedia Britannica – 1768 (Vols:30+2: Micropaedia(10v), Macropaedia (19V) & Propaedia (1V) & Index (2V)) <Univ. of Chicago><Alphabetical>
Encyclopedia Americana – 1829
American Chemical Abstract - 1907
Biological Abstract – 1926
Annals of Lib. Sc. & Documentation – 1955
McGraw Hill Encyclopedia of Sc. & Tech - 1960
Indian Science Abstract - 1965
Encyclopedia of Library and Information Science – 1968 <Allen Kent &Harrold Lancour 35 Vols +10 Vols suppl.>

686. Mention the year of origin of the following Associations/Organizations/Institutions.

LC - 1800
ALA – 1876 <HQ: Chicago>
LA (CILIP) – 1877 <HQ: London>
IIB- 1895
SLA – 1908 <H.Q. New York>
ASLIB – 1924
BLA - 1925
IFLA – 1927 <HQ: Geneva><'LIBRI' 1953>
IID – 1931
ILA – 1933
ASIS - 1935
FID – 1938 <H.Q. The Hague, Netherlands>
INSDOC – 1952 (Presently NISCAIR)
VINITI - 1952<H.Q. Moscow>
IASLIC - 1955
DRTC – 1962
DESIDOC – 1967 (1958?)

ICSSR – 1968
INIS – 1970 <Apr>
UNISIST – 1970-71
NASSDOC – 1970
SENDOC – 1971 <SIET - 1962>
AGRIS – 1974
NISSAT – 1975 <Fully started 1977>
WLN – 1976
RLIN <adopted by Standford Univ.>
NIC – 1980s
JANET - 1984
ERNET – 1986
DELNET – 1988
INFLIBNET – 1989

687. Mention the origin of the following classification system.

Dewey Decimal Classification – 1876 (Melvil Dewey)
Expansive Classification – 1893 (Charles Ammi Cutter)
Universal Decimal Classification – 1895 (Paul Otlet & Henry La Fontain) <Abridged ed.-1961, International Medium ed. – 1985)
Library of Congress Classification – 1901 (Herbert Putnam, Directed by J.C.M.Harison)
Subject Classification – 1905 (James Duff Brown)
Colon Classification – 1933 (S.R.Ranganathan)
Bibliographic Classification – 1935 (Henry Evelyn Bliss)
Faceted Classification – 1960 (Vickery)
Rider's International Classification – 1961 (Fremont Rider)
Broad System of Ordering – 1979 (First draft in 1975 by E.J.Coates,G.A.Lloyd & D.Simandl, rev. Draft – 1976 & 1977) <FID>

688. Mention the author of the following book.

Manual of Library Classification and Shelf Arrangement – J.D.Brown
Classification Theoritical and Practical – E.C.Richardson (1901)
Principles of Book Classification – E.W.Hulme
Prolegomena to Library Classification – S.R.Ranganthan (1937)
Canons and Laws was made in Prolegomena (1967 in its 3rd ed.)
Wall Picture principle -1962.

Nayakosa – S.R.Ranganathan (refers 1008 principles)
Organization of Knowledge in Libraries and the Subject Approach to Books – H.E.Bliss
Manual of Classification for Libraries – A.M.Sayer
Essentials of Library Classification - S.R.Ranganathan

689. Mention about the following reference sources.

1. Statesman Year Book – Editor John Paxton, Information about agricultural production, history, area, population of different countries of the World. Macmillan Press, London. (Arrangement: Alphabetical) (year of origin: 1864).

2. Indian Industries – Editor Kailash Aggarwal. Information about industry, textile, steel metals, electronic machine tools etc.

3. A Gazetter of the World – Information about physical, historical & ethnographical geography, geology, botany, zoology, climate of each country.

4. Universities Handbook – Association of Indian Universities. Information about universities, deemed universities, learned institutions etc. Ajanta Offset, New Delhi. (origin 1962).

5. Harrod's Librarians Glossary and Reference Book – Editor Leonard Montague Harrod. Glossary of terms used in Lib.& Inf. Sc. Gower Publishing, London. Arrangement: Alphabetical) (year of origin: 1938).

690. What is Dictionary Catalogue?

Catalogue in which all the entries are word entries (CCC).

A catalogue in which all the entries (author, title, subject, series etc.) and their related references are arranged together in one general alphabet. The subarrangement varies from strictly alphabetical.

691. What is Descriptive Cataloguing?

Descriptive cataloguing is that aspect of cataloguing which is concerned with the information given in the body of the entry as distinct from the heading. It is used to identify and describe a particular document.

692. Mention the purposes of Descriptive Cataloguing.

According to Needham, the purposes of descriptive cataloguing are:

(i) To identify or individualize the document being catalogued.

(ii) To characterize the document.

(iii) To place the entry in the most useful position within the chosen heading.

693. Distinguish between AACR-II & RDA.

AACR-II	RDA
Based on 1961 Paris Principles	Based on FRBR (Functional Requirements for Bibliographic Records), FRAD (Functional Requirements for Authority Data), and statement of International Cataloguing Principles (IFLA Meetings of Experts on an International Cataloguing Code)
A mixture of principle and case-based rules	Goal to include only principle-based rules
Integrated with ISBD	ISBD optional; just one of display options
Created for card catalogue	Created for integrated library systems
Catalogue an 'item'	Catalogue a 'resource'
Heading	Access point
Uniform title	Preferred access point
Rule of three often invoked	Rule of three likely to be eliminated
Two parts: (i) Description (ii) Headings, Uniform Titles, and References	RDA has ten sections falling in two groups (i) Recording attributes (ii) Recording relationships
Part I organized by class of material	Organied by data element

First cataloguing code to integrate all media	Potential to add general subject access rules as well
Used by library community	Goal to be used by various communities: library, metadata, publishers etc.

694. Mention the eight areas of AACR-II.

1. Title and statement of responsibility
2. Edition
3. Material (type of publication) specific details
4. Publication, distribution etc.
5. Physical description
6. Series
7. Note
8. Standard numbers and terms of availability

695. Mention the chapter relating to specific types of documents in AACR-II.

Chapters	Specific types of documents
2	Books, pamphlets and printed sheets
3	Cartographic materials
	Manuscripts (including manuscript collection)
5	Music
6	Sound Recordings
7	Motion pictures and video recordings
8	Graphic materials
9	Machine readable microform
10	Data files
11	Three-dimensional artefacts and realia microforms
12	Serials
13	Analysis
22	Persons
23	Geographic names
24	Corporate bodies

696. What is specification?

Specification is a statement of requirements to be met if a given objective is to be attained. (John Gillard).

697. What is standard?

Standard is a specification of recurrent use.

"Every standard is a specification, but not every specification is a standard".

698. Mention the purposes of standards.

(i) to reduce overall economy
(ii) to evolve better means of communication about an item between producer and customer;
(iii) to set the recognized level of quality and to help in spelling out more clearly the specification of items.

699. Mention the types of standard.

(i) Dimensional standards
(ii) Materials standards
(iii) Performance standards
(iv) Standards of test vmethods
(v) Codes of practice
(vi) Standards of terminology and graphic symbols
(vii) Documentation standards

700. Mention the different forms of cataloguing.

(i) Card form (5"x3"/12.7x7.62 cm.)
(ii) Book form
(iii) Sheaf form/Book form (7½"x4")

701. What is difference between catalogue and bibliography.

Bibliography	Catalogue

It is an organized list of documents by and on an author or a particular subject (s) and is not limited to a particular collection.	It is limited to a particular collection or library.

702. What is shelf list?

A shelf list is an essential component of the library's tools for access to its collection. Since it shows the material assigned to a particular classification number, it is an invaluable aid to classification, its classified arrangement makes it a substitute for a elaborate classified catalogue.

703. What is card catalogue?

A catalogue in card form is one in which entries are made in any desired order, on cards of uniform size and kept in trays or drawers.

704. What is book form catalogue?

In a catalogue in book form, entries are printed and bound into a volume or volumes.

705. What is Sheaf form catalogue?

A sheaf catalogue is one in which slips of paper are put into a loose leaf binder and bounded by some mechanical device into a sheaf or volume.

706. What is guard book catalogue?

Guard book catalogue entries may be typed on to large sheets of paper which are bound into volumes.

707. What is horizontal card index?

Horizontal card index constructed according to the knowledge method, the cards lie flat. Each card projects a little in front of the one following so that the cards in shallow drawers of about half an inch depth.

708. What is analytical entry?

It is an entry for a part of an item for which a comprehensive entry has been made.

709. What are Law, Canon and Principles?

Law – In the context of major discipline
Canon – In the context of division of first order of major discipline.
Principles - In the context of division of second order of major discipline.

710. What are the needs for catalogue?

1. to enable a person to find a book of which either
(a) the author or
(b) the title
(c) the subject is known
2. to show what library has
(d) by a given author
(e) on a given author
(f) on a given kind of literature

711. What is periodical?

Periodical publication of which each volume is made up of distinct and independent contribution, not forming a continuous exposition, normally by two or more or more personal authors and the normally the specific subjects and the author of the contributions in successive volumes also being, in general, different but all the subjects falling within one and the same region of knowledge, contemplated to be brought within its perview. It is not usually released complete as a volume but only in fascicules or numbers, as their called. It essentially expounds knowledge and not repeat the same kind of information, usually in the same pattern, in each of its volume just bringing the information uptodate from volume to volume.

The term 'periodical' is also used to denote any single volume of a periodical as defined above.

Ex: 1. Annals of Library Science,
2. Proceedings, Royal Society of London
3. Zeitschrift, Deutschen Morgenlandischen Gesellscaft

712. What is serial?

Periodical publication of which each volume or each periodical group of volumes embodies more or less the same kind of information, usually in the same pattern, mainly relating to its year (or other period) of coverage. It is usually released complete as a volume. It is not made of diverse contributions each forming a continuous exposition of knowledge.

The term 'serial' is also used to denote any single volume of a serial as defined above.

Ex: Annual report of the director of agriculture, Madras.

713. Mention the information coverage of the following reference sources.

About Universities: Universities Handbook, Commonwealth Handbook, World of Learning

About Altitude, Length of any area: Gazetteer (e.g. A Gazetteer of the World: Statistical, Historical <Gian Publishing House, New Delhi>

About Population: Asian recorder

About Population, Travel: India: A Reference Annual

About Biograophy: India Who's Who <Inder Jit>, Dictionary of National Biography <S.P.Sen>

Geographical Dictionary: Webster's New Geographical Dictionary

About English Literature: The New Cambridge Bibliography of English Literature

General Encyclopedia: Encyclopaedia Britannica (University of Chicago)

Subject Encyclopedia: McGraw-Hill Encyclopedia of Science & Technology (Sybil P.Parker)

714. What are the reasons behind the change of term from 'cataloguing' to 'resource description'?

RDA is built on the foundations established by the Anglo American Cataloguing Rules (AACR). It will provide a comprehensive set of guidelines and instructions on resource description and access covering all types of content and media. RDA is being developed for use primarily in libraries. But it will serve other communities also like archives, museums, publishers, educators, book dealers, ILS vendors and other communities that produces metadata. The phrase 'resource description' has been used intentionally by the AACR (Joint Steering Committee) instead of the term "Cataloguing" to attract the other metadata communities. Metadata produced by other communities fail to apply the basic principles of bibliographic description because most of the people by other communities fail to apply the basic principles of bibliographic description because most of the people in these fields are expert in computer technology not in library science. RDA perhaps can bridge this gap in a significant way.

715. Mention the parts of RDA.

At present RDA consists of:

- 10 sections
- With 37 chapters
- And 12 appendices
- Glossary
- Index

Section 1: Recording attributes of manifestation and item

Chap 1: General guidelines on recording attributes of manifestations and items

Chap 2; Identifying manifestations and items

Chap 3: Describing carriers

Chap 4: Providing acquisition and access information

Section 2: Recording attributes of work and expression

Chap 5: General guidelines on recording attributes of works and expressions

Chap 6: Identifying works and expressions

Chap 7: Describing additional attributes of works and expressions

Section 3: Recording attributes of person, family, and corporate body

Chap 8: General guidelines on recording attributes of persons, families, and corporate bodies
Chap 9: Identifying persons
Chap 10: Identifying families
Chap 11: Identifying corporate bodies
Section 4: Recording attributes of concept, object, event, and place
Chap 12: General guidelines on recording attributes of concepts, objects, events, and places
Chap 13: Identifying concepts
Chap 14: Identifying objects
Chap 15: Identifying events (Chap 13-15 to be developed after the initial release of RDA in 2009)
Chap 16: Identifying places
Section 5: Recording primary relationships between work, expression, manifestation, and item
Chap 17: General guidelines on recording primary relationships between a work, expression, manifestation, and item
Section 6: Recording relationships to persons, families, and corporate bodies associated with a resource
Chap 18: General guidelines on recording relationships to persons, families, and corporate bodies associated with a resource
Chap 19: Persons, families, and corporate bodies associated with a work
Chap 20: Persons, families, and corporate bodies associated with an expression
Chap 21: Persons, families, and corporate bodies associated with a manifestation
Chap 22: Persons, families, and corporate bodies associated with an item
Section 7: Recording subject relationships
Chap 23: General guidelines on recording the subject of a work (To be developed after the initial release of RDA in 2009)
Section 8: Recording relationships between works, expressions, manifestations, and items
Chap 24: General guidelines on recording relationships between works, expressions, manifestations, and items
Chap 25: Related works
Chap 26: Related expressions

Chap 27: Related manifestations
Chap 28: Related items
Section 9: Recording relationships between works, expressions, manifestations, and items
Chap 29: General guidelines on recording relationships between persons, families, and corporate bodies
Chap 30: Related persons
Chap 31: Related families
Chap 32: Related corporate bodies
Section 10: Recording relationships between concepts, objects, events, and places
Chap 33: General guidelines on recording relationships between concepts, objects, events, and places
Chap 34: Related concepts
Chap 35: Related objects
Chap 36: Related events
Chap 37: Related places ((Chap 33-37 to be developed after the initial release of RDA in 2009)
Appendices
RDA will contain twelve appendices:
Appendix A: Capitalization
Appendix B: Abbreviations
Appendix C: Initial articles
Appendix D: Record syntaxes for descriptive data
Appendix E: Record syntaxes for access point control data
Appendix F: Additional instructions on names of persons
Appendix G:Titles of nobility, terms of rank, etc.
Appendix H: Conversion of dates to the Gregorian calendar
Appendix J:Relationship designators: Relationships between a resource and persons, families, and corporate bodies associated with the resource
Appendix K:Relationship designators: Relationships between works, expression
Appendix L:Relationship designators: Relationship between persons, families, and corporate bodies
Appendix M: Relationship designators: Relationship between concepts, objects, events, and places

716. What is the name of first PC virus? In which year it was created and where?

The first PC virus is brain virus. It was created in 1986 in Pakistan.

717. What is Information warfare?

Information warfare consists of those actions intended to protect, exploit, corrupt, deny, or destroy information or information resources in order to achieve a significant advantage, objective, or victory over an adversary.

718. What is offensive information warfare?

An offensive operation aims to increase the value of a target resource to the offense while decreasing its value to the defense.

719. What is defensive information warfare?

Defensive operation seeks to counter the potential loss of value.

720. Mention some types of malicious or virulent software.

1. Software bugs/bug ware: an error in program writing. This coding error results in faulty or unexpected operation.
2. Trojan horse: It is simply a computer program. Now it is largely considered to be the grandparent of today's virulent software.
3. Software chameleons: Software chameleons mask virulent code having an image of legitimate application just like a chameleon hides itself by mimicking its background.
4. Software bombs: It is just what the name implies when the infected program is launched; the virulent "bomb" code executes almost immediately and does its damage.
5. Logic bombs: A logic bomb is set to go off when a particular logical condition is met. For example, the logic bomb might "detonate" (erase files, calculate subsequent payroll records incorrectly, reformat the disk, etc.)if payroll records indicate that the bomb's author is fired or laid off, or if their payroll statements do not appear for over four weeks.

6. Time bombs: Instead of triggering a bomb immediately or through system-status conditions, a time bomb uses time or repetition conditionals. Time bombs are often used as a means of "making a statement" about a particular date and time.
7. Replicators: The purpose of a replicator is to drain system resources by cloning copies of it.
8. Worms: A worm is a small piece of software that uses computer networks and security holes to replicate itself.
9. E-mail bombs: It is electronic equivalent of a letter bomb, when the e-mail is read, an electronic bomb explodes.
10. Malicious scripts: The underground to aid an attack on a computer system constructs these. The script could take the form of a C program that takes advantage of a kbown vulnerability in an operating system.

721. Mention some viruses in PC.

1. Program viruses
2. boot sector viruses
3. File infector virus
4. Triggers and payloads
5. File-specific virus
6. Memory-resident virus
7. Multipartite virus
8. Macro virus

722. What are the characteristics of an index?

(i) It is a guide to the items/concepts in documents;
(ii) The items in an index are arranged generally in alphabetical order; and
(iii) There are references to show where these items are located in the document. This is generally done through the serial numbers of the items, page numbers or any other type of symbols like class numbers, etc.

723. What are the needs for indexing?

The main reasons for preparing indexes may be briefly stated as follows:
(i) Proliferation in production of literature, specially micro literature;
(ii) Emergence of multi-faceted documents;

(iii) Rise in demand for quick retrieval of information;
(iv) Repetitive use of documents containing information; and
(v) Impracticability of scanning of literature beyond a limited number.

724. Mention some examples of National gazetteer.

Gazetteer of India: Indian Union, Imperial gazetteer of India (First published in 1881).

725. Mention some travel guide books.

Fodor's India, Murray's guide or handbook for travellers in India, Newman's Indian Bradshaw.

726. Mention the types of Maps.

Physical map, Political map, Route map and Thematic map.

727. Mention some examples of Atlas.

Britannica atlas, Times atlas of the world.

728. What is the difference between almanac and yearbook?

A yearbook is a compendium of current information for the previous year. However an almanac covers information of the previous year as well as considerable amount of retrospective materials, which may or may not find a place in a yearbook.

729. Mention some examples of yearbook.

Asian recorder, Keesing's contemporary archives, Stateman's yearbook, India: a reference annual, Times of India directory and yearbook including who's who.

730. Mention some examples of almanac.

Whitaker's almanac, World almanac, Book of facts.

731. Mention some examples of supplement to encyclopedia.

Britannica book of the year, Americana annual, McGraw-Hill yearbook of science and technology.

732. Mention some examples of biographical sources.

Biography indexes: a cumulative index to biographical material in books and magazines, Index to the Times of India, International who's who, Webster's biographical dictionary, International yearbook and statesman's who's who, Dictionary of national biography, India who's who, Eminent Indians: who was who 1900-1980.

733. What is handbook?

A handbook is a compilation of miscellaneous information in a compact and handy form. It may contain data, procedures, principles, etc. Tables, graphs, diagrams and illustrations are provided. Scientists and technologists and handbooks in their fields rather frequently.

734. What is manual?

A manual is an instruction book, which provides instructions as how to perform a job or how to do something by means of specific and clear direction.

735. Mention some examples of handbook.

Engineering mathematics handbook, Famous first facts, Handbook of Chemistry.

736. What are the main uses of a dictionary?

(i) To find the meanings of words, phrases and expressions;
(ii) To check the spelling, syllabication and hyphenation of a word;
(iii) To check the pronounciation of a word.

The secondary use of dictionary is to trace the history of a word including its origin, derivation etc.

737. Mention some examples of general (language) dictionary.

Funk & Wagnalls new standard dictionary of the English language, Webster's new international dictionary of the English language, Oxford English Dictionary, Hindi Shabdsagar, Encyclopedic dictionary of Sanskrit on historical principles.

738. Mention some examples of bi-lingual dictionary.

Comprehensive English-Hindi dictionary, French-English science and technology dictionary.

739. Mention some examples of polygot dictionary.

Elsevier's dictionary of library science, information and documentation (W.E.Clason, comp.), Bharatiya byabahar kosha.

740. Mention some examples of subject dictionary.

Comprehensive glossary of technical terms, Glossary of chemical terms, McGraw-Hill dictionary of scientific and technical terms (Sybil P. Parker), ALA glossary of LIS (Heartstill Young, ed.), Librarian's glossary of terms used in librarianship, documentation and the book drafts and reference book (L.M.Harrod).

741. Mention some examples of dictionary of quotations.

Familiar quotations (John Bartlett), The Bible, The Book of Common Prayer, The Koran.

742. Mention some examples of synonym and antonyms dictionary.

Roget's international thesaurus, Webster's new dictionary of synonyms.

743. Mention example of dictionary of usage.

Dictionary of modern English usage.

744. Mention some examples of trade bibliography.

International books in print, Books in India: supplement to index India, Indian book industry, Indian book reporter, BEPI: a bibliography of English publication in India, Indian books in print: a bibliography of Indian books.., Cumulative Book Index: a world list of books in the english language.

745. Explain virtual reality.

The emerging phenomenon of virtual reality (VR) posses a number of related problems. Virtual reality is created by software. Virtual reality is a simulated environment which may be experienced much as reality is experienced. VR is like a very detailed, immersive video game. Virtual objects may be manipulated by using some sort of interface, such as a "data glove", which senses the position and movements of the user's hands. Other interfaces "put" the user into the virtual environment to varying degrees by sensing the movement of other limbs or the position of the user's body and by generating sensory feedback which the VR user experiences.

Clearly, virtual reality poses a number of practical problems. Suppose a virtual reality world in which users may manipulate virtual objects and "inhabit" virtual places. May such users own virtual objects? May they assert possession of virtual places to the exclusion of others? If so, by what claim of right may such ownership or possession be asserted? Would not such claims require at least a strong analogy of virtual reality to actual reality or Real Life "RL" (for want of a better distinction)?

To date, no comprehensive philosophical analysis has been made which might provide satisfactory solutions to the practical problems posed above. Rather, cyberspace is being created without any real understanding of what it is. As such, we are often at a loss for how to treat it. The Internet is a prime example of how a lack of understanding has led to conflicts. Moreover, the law provides a useful framework for discussing the theoretical problems of computer-mediated phenomena given the legal system's attempts to grapple with the conflicts which have emerged.

746. Explain cyberspace.

The word 'cyberspace' was coined by the science fiction author William Gibson in his 'cyberpunk' fiction (a genre more-or-less invented by him with his novel *Neuromencer*), when he sought a name to describe his vision of a global computer network, linking all people, machines and sources of information in the world, and through which one could move or "navigate" as through a virtual space.

The word 'cyber', apparently referring to the science of cybernetics, was well-chosen for this purpose, as it derives from the Greek verb "Kubernao", which means "to steer" and which is the root of our present word 'to govern'. The word 'space', on the other hand, connotes several aspects. First, a space has a virtually infinite extension, including so many things that they can never be grasped all at once. This is a good description of the already existing collections of electronic data, on e.g.the Internet. Second, space connotes the idea of free movement, of being able to visit a variety of states or places. Third, a space has some kind of a geometry, implying concepts such as distance, direction and dimension.

The word 'cyberspace' is used in a variety of significations, which each emphasize one or more of the meanings sketched above. Some use it as a synonym for virtual reality, others as a synonym for the World-Wide Web hypermedia network, or for the Internet as a whole (sometimes including the telephone, TV, and other communication networks).

747. On which day World Book Day and Copyright Day is being observed?

23rd April every year. It is being observed by UNESCO from 1995.

748. Which institution determines and controls ISSN No.?

National Information Centre (Under NISCAIR, New Delhi).

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2. 27th Annual Convention of the Society for Information Science and Conference on "Open Access Gateway to Open Innovation" scheduled to be held in Indian Institute of Chemical Biology, Kolkata during November 24-26, 2010. ISBN: 978-81-8465-741-8.
3. 45th ILA Conference on "Library Vision 2010: Indian Libraries and Librarianship in Retrospect and Prospect" at Hisar, Haryana during 23-26 December, 1999. ISBN: 81-8674-254-3.
4. 49th Bengal Library Conference on "Problems and Prospects of Application of Computer in Different Types of Libraries and Problems of Different Types of Libraries and Library Staff", 14-16 Dec. 2007.
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16. International Conference on "Academic Libraries" held in Delhi University during 5-8 October 2009. ISBN: 81-8324-339-8.
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Books by the same authors:

(i) MCQs for Library and Information Science

(ii) Monograph for Library and Information Science

(iii) Treatise for Library and Information Science

(iv) LIS Doctoral Dissertations in India: A Comprehensive Directory