INDIAN STATISTICAL INSTITUTE
DOCUMENTATION RESEARCH AND TRAINING
CENTRE
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Syllabus for the Junior Research Fellow in Library and Information Field

Area 1 : Foundations of information Science

Information : Definition, kinds, nature, use Information models and theories. Economics of information. Information and National Development Systems.

Information System as a basic Component of NDS :

Primary Information Communication System, Theories of human communication; Information diffusion, Secondary Information Service System. Normative principles of information systems. Different information phenomena (activities), and corresponding applied and fundamental disciplines. Information professions and their specializations.

Information Science : Definition; Scope; Educational Programmes in Library Science, Documentation, and "Information Science". Relationship of "Information Science" with other disciplines.

Area II : Information Sources, communication Media , Information System and Programmes.

Identification, organization, utilisation limitations and other relevant characteristics of information sources.

1. Documentary sources
2. Human sources
3. Institutional sources

Structures, functions, products, and services of different categories of information systems such as, libraries, documentation centres, clearing houses, referral centres, information analysis centres, databank etc., national, regional, global information systems, services and programmes; overall objectives, basic factors to be considered in system design, characteristic features, illustrative examples, with emphasis on computerised systems and services and the methodology of handling the respective data bases.

Area III : Information Processing and Organisation

Information Dissemination and Retrieval System and the concept of ":surrogate" Descriptive indexing: Entry, Index and Indexing. Standardised description of Sources of Information as objects; Methodology of designing codes (Standards and Specifications) for descriptive indexing. General theory of subject Indexing Language (SIL): Linguistic and SIL. Subject and Subject-proposition. Universe of Subjects.

Elements and their interrelationships, semantic structure, syntactic structure, and Pragmatics of SIL. Attributes of the Universe of Subjects; Modes of formation of subjects; the concept of development of the University of subjects. Subject Classification and Subject Indexing;

Organising classification; Associative Classification, Tools for classification / indexing Notational-cum-verbal schemes for classification; their design and application. Verbal schemes for classification - Thesauri, Subject authority lists, etc., their design and application. "Classaurus" (a Classification scheme incorporation all essential features of a thesaurus): Its design and application.   Defferent systems of indexing. Computerization of classification / indexing. Organization of information and the role of classification principles.

Area IV : Information Transfer and Dissemination

Category of users, user needs, user studies. Information diffusion patterns and studies. Organization, structures and provision of information services including:
Current awareness services, SDI, Reference Services, Abstracting Services, Digests, Technical notes, New briefs, Product and process bulletins, State-of-the-art and Trend Reports, Products of information analysis, Data service, Translation service, Extension service and Technology transfer, Presentation of information, Marketing of information services, Information resources sharing.

Area V : Information Technology and its Applications

Brief overview of Computer technology, Communication technology and Reprography /printing technology as applied to information storage, retrieval and dissemination. Systems analysis and systems design concepts. Bibliographic formats such as MARC, ISO2709, CCF etc. Networking and Internet. Library Automation and MM Application.

Digital Library: Concept, Definition and background, digital library initiatives. Digitization of print materials (methods and tools). Searching collection of digital objects. Viewing digital collection objects and metadata standards.

Area VI : *Information System/Centre Planning and Management*

Planning methodology. National Information System Planning; Information policy. Organization structures.

Management: Personnel, Financial, Materiel and other resources management, and the applications of modern management ideas and techniques to libraries; Documentation and Information Centres; Referral centers; Data Banks and Information Analysis Centres. System evaluation.

Knowledge Management: Definition, scope. Difference between information management and Knowledge Management. Types of knowledge. Knowledge management procedures. Role of library professionals in knowledge management.

Area VII : *Research Methods and Bibliometrics*

Model Question Papers
For the entrance test for JRF-2005

Sub: Library & Information Science
Test Code: RLI

Time: 2 Hrs.   Max Marks:100

Note: RLI is an objective type test. Candidates are expected to answer
60 question. The sample questions are:

Who is the publisher of Books in Print?
- a)   American Library   Association
- b)   H.W. Wilson
- c)   Marcel Dekker
- √ d)   R.R. Bowker

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1. Two six-faced dice are tossed. What is the probability that both the
dice will show 3.
- a)   1/6   b) 1/36
- c)   1/72   d) None of the above

2. Law of Osmosis deals with

- a. Transfer of old collection to new collection
- b. Transfer of water through semi-permeable membrane
- c. Flexibility   d. none of these.

3. The three planes of classification are as follows

- a. verbal plane, idea plane, notational plane
- b. idea plane, notational plane and verbal plane
- c. idea plane, verbal plane and notational plane
- d. notional plane, verbal plane and idea plane

4. Inverse Square Law of Scientific Productivity is the work of

    a) GK Zipf   b) A J Lotka
    c) S C Bradord   d) B C Brookes

5. By which of the following modes of formation, the subject "Econometrics" has developed.

    a) Cluster   b) distillation
    b) fission   d) fusion

SAMPLE QUESTION PAPER
For the entrance test for JRF's-2005

SUB : *Library and Information Science*
Test Code : *RL-II*

1. What are the measures of evaluation of an information retrieval system?

2. Give a critical analysis of the different Data collection methods for the conducting a research.

3. Describe one of the budgeting techniques, support with arguments.

4. State and discuss Lotka's Law.

5. Discuss critically the impact of IT in the context of information management.