

**PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR**  
**Master of Library and Information Science**  
**Scheme of Exam: 2016 – 2017**

**FIRST SEMESTER**

**Total Credits - 20**

<b>Paper</b>	<b>Subject</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Credits</b>
I	FOUNDATION OF INFORMATION SCIENCE	20	80	4
II	KNOWLEDGE ORGANISATION & INFORMATION PROCESSING	20	80	4
III	RESEARCH METHODS & STATISTICAL TECHNIQUES	20	80	4
IV	MANAGEMENT OF LIBRARY & INFORMATION CENTRES/INSTITUTION	20	80	4
V	INFORMATION PROCESSING AND RETRIEVAL (PRACTICE-I)	20	80	4
Total		100	400	20

**SECOND SEMESTER**

**Total Credits - 20**

<b>Paper</b>	<b>Subject</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Credits</b>
VI	INFORMATION RETRIEVAL	20	80	4
VII	INFORMATION SOURCES, PRODUCTS AND SERVICES	20	80	4
VIII	INFORMATION TECHNOLOGY : BASICS & APPLICATIONS	20	80	4
IX-A	MANAGEMENT INFORMATION SYSTEMS.	20	80	4
X	INFORMATION PROCESSING & RETRIEVAL (PRACTICE – II)	20	80	4
Total		100	400	20
<b>Total Marks of Semester I &amp; II</b>		<b>200</b>	<b>800</b>	<b>40</b>

# **FIRST SEMESTER**

## **Paper-I FOUNDATION OF INFORMATION SCIENCE**

**Full Marks: 100 (Theory: 80, Internal Assessment: 20) Pass Marks 36%**

### **UNIT-1: Information Science-**

- Definition, Scope, Objectives, Genesis and development.
- Information Science as a discipline and its relationship with other subject fields.
- Information industry- Generators, Providers and intermediaries.

### **UNIT-2: Information and communication-**

- Information: Characteristics, Nature and use of information.
- Conceptual difference between data,
- Information and Knowledge.
- Communication of Information.
- Information generation and diffusion.
- Communication channels and barriers.

### **UNIT-3: Information and the state-**

- Policies relating to information including science and technology and education.
- International and national programs and policies (NAPLIC)
- IT and library.
- UAP, UBC
- Laws relating to information with special reference to India. Including press and registration act. Delivery of books (public Libraries) Act, Copyright Act.

### **UNIT-4: Information user & their needs-**

- Categories of information users.
- Information needs: definition and models.
- Information seeking behavior.
- Methods and techniques of user studies.

- Evaluation of user studies.

#### **Unit-5: Information products-**

- Information products: Nature, concept, types, design and development and marketing.
- Economics of information.
- Information management.
- Knowledge management.

### **Paper-II KNOWLEDGE ORGANISATION & INFORMATION PROCESSING**

**Full Marks: 100 (Theory: 80, Internal Assessment: 20) Pass Marks 36%**

#### **UNIT-1: Universe of Knowledge-**

- Structure and attributes.
- Modes of formation of subjects,
- Different types of subjects and their modes of formation
- Universe of Knowledge as mapped in different schemes of classification.

#### **UNIT-2: Methods of knowledge organization-**

- Canons and normative principles of sayers and Ranganathan of classification.
- Species of Library Classification schemes.
- Standard schemes of library classification; Introduction, features and application-CC, DDC, & UDC.

#### **UNIT-3:**

- Universal and special schemes of classification.
- Abstract classification.
- Choice of schemes of classification.
- Study of categories postulated by different classificationists for grouping ideas.
- Postulates & Principles for facet sequence,
- Telescoping of facets.

#### **UNIT-4: Notation-**

- Notation: Types, Structure & qualities, canons of notation.

- Mnemonics- Types and canons
- Indicator digits.
- Zone analysis and sector notation.
- Canons for book classification.
- Systems of book number.

#### **UNIT-5: Recent Trends & Developments-**

- Design and development of a Scheme of library classification.
- Role of DRTC, CRG and FID.
- Contribution of International Conferences towards classification research.
- BSO: Salient features.

### **Paper-III RESEARCH METHODS & STATISTICAL TECHNIQUES**

**Full Marks: 100 (Theory: 80, Internal Assessment: 20) Pass Marks 36%**

#### **UNIT-1: Research-**

- Research: Concept, Meaning, need and process of research.
- Types of Research- Fundamental and Applied.
- Research Design- Types of research design, Identification and formulation of problem, Hypotheses.

#### **UNIT-2: Research methods-**

- Research Methods- Scientific, Historical, Descriptive, Survey and case study methods, Experimental method and Delphi Method.
- Research techniques & Tools- Questionnaire, Schedule interview, Observation and sampling techniques.

#### **UNIT-3: Data analysis and Interpretation-**

- Descriptive Statistics- Measures of central tendencies- Mean, Median, Mode.
- Tabulation and generalization.
- Standard Deviation and Correlation.
- Testing of hypotheses.

#### **UNIT-4: Bibliometrics, Informatics & Scientometrics-**

- Bibliometrics, Informatics & Scientometrics: Concept definition and their scope
- Bibliometrics laws- Bradford, Zipf, Lotka.
- Content analysis,
- Sociometry.
- Citation studies- Citation-nature and definition, Citation-theory and analysis.
- Offset weight age formula of Sengupta.

### **UNIT-5: Research reporting- Designing research proposal-**

- Structure, Style, Contents & Guidelines for Research reporting.
- Standards for citing bibliographical references (Like Chicago manual, MLA & Indian standards)
- Current trends in library and information science research.

## **Paper-IV MANAGEMENT OF LIBRARY & INFORMATION CENTRES/INSTITUTION**

**Full Marks: 100 (Theory: 80, Internal Assessment: 20) Pass Marks 36%**

### **UNIT-1 Management**

- Management styles and approaches.
- Management schools of thought.
- Functions and Principles of Scientific Management.
- Human Resource Management- Organization structure, Job analysis and description; Job evaluation, Motivation.

### **UNIT-2 Financial Management-**

- Resource mobilization.
- Budgeting technique & methods: PPBS. Zero based budgeting etc. Budgetary control.
- Cost effectiveness and cost benefit analysis.
- Total Quality Management (TQM)- Definition, Concept & elements of TQM and quality audit.

### **UNIT-3 System Analysis and Design-**

- System- definition, Concept and characteristics.
- Library as a system.
- Project management,
- PERT/CPM.
- Decision tables.
- DFD (Data Flow Diagram).
- Work study: Flow chart, Gantt chart, Block diagrams.

### **UNIT-4 Planning-**

- Concept, Definition, Need, Purpose, Types, Policies and Procedures.
- MBO, MBE
- Strategic management- Definition objectives. Policies process & models of strategic management.
- SWOT analysis.

## **UNIT-5 Managing Change**

- Concept of change: changes in procedures, method.
- Use of new tools and techniques;
- Techniques of managing change.
- Collection development and management- Policies and procedures.
- Time and motion study.

## **Paper-V INFORMATION PROCESSING AND RETRIEVAL (PRACTICE-I)**

**Full Marks: 100 (Theory: 80, Internal Assessment: 20) Pass Marks 36%**

Classification of titles/documents by Colon Classification (6<sup>th</sup> Rev. Ed.) and UDC (Medium Edition).

## **SECOND SEMESTER**

### **Paper-VI INFORMATION RETRIEVAL**

**Full Marks: 100 (Theory: 80, Internal Assessment: 20) Pass Marks 36%**

#### **UNIT-I: Subject analysis and representation-**

- Problems of subject analysis and representation.
- Contributions of cutter, Ranganathan, Farradane and Coates.
- Principles of subject cataloguing- Assigning subject-Headings using library of Congress subject headings and sears list of subject heading etc.

#### **UNIT-II: Indexing language and vocabulary control-**

- Indexing languages- Types and characteristics.
- Vocabulary control- Tools of vocabulary control.
- Thesaurus- Structure and construction of an IR Thesaurus. Thesaurofacet.
- Trends in automatic indexing.
- Recall and Precision devices in indexing languages.

#### **UNIT-III: Indexing systems-**

- Pre coordinate and post coordinate indexing system.
- Outline study of the following indexing systems.
- KWIC, KOWC.
- Chain Indexing, PRECIS, POPSI.
- Uniterm indexing, Citation indexing.
- Standards for Bibliographical Description: AACR-2, ISBD, MARC(Format), CCF.

#### **UNIT –IV: Information Retrieval Systems-**

- Definition, Types, Components and operational stages of IRS.
- Information Retrieval- Data Base, Information base and SQL, IR Models.
- Search Process- Principles & methods of searching.
- Search Techniques- Boolean searches On-line searching techniques and retrieval.

#### **UNIT-V: Information retrieval systems evaluation.**

- Projects and parameters.
- Important test results- Cranfield, Medlars, Smart.
- Information retrieval through optical media and CD-ROM data base.
- IR through OPAC and Internet.

### **Paper-VII INFORMATION SOURCES, PRODUCTS AND SERVICES**

**Full Marks: 100 (Theory: 80, Internal Assessment: 20) Pass Marks 36%**

#### **UNIT-I: Information sources-**

- Documentary sources of information.
- Print, Non-print including Electronic Nature.
- Characteristics, Utility and evaluation of different types of information sources.
- Non Documentary Information sources; Human and institutional – Nature, Types, Characteristics and utility.
- Internet as a source of information.

#### **UNIT-II: Information services-**

- Information services- Concepts, Definition need and trends.
- Techniques and evaluation of alerting services (CAS & SDI).
- Bibliographic, Referral.
- Document delivery and translation services.

#### **UNIT-III: Information Products-**

- Information products- Nature, Concept, Types, Design and marketing. Abstracting.
- Types and guidelines in preparing abstracts.
- Study and evaluation of important abstract periodicals information analysis, Repackaging and consolidation.

#### **UNIT- IV: User Educations-**

- Goals and objectives, Levels, Technique and methods.
- Reference interview and search techniques.
- Resource sharing and library networking.
- Study of Indonet, Infilbnet, Calibnet, Nicnet, Delnet, Adinet, Malibnet.

## **UNIT-V:**

- International information system and network.
- AGRIS, BIOSIS, CAS, DEVSIS, ICSU, INIS, INSPEC, MEDLARS.

## **Paper-VIII INFORMATION TECHNOLOGY: BASICS & APPLICATIONS**

**Full Marks: 100 (Theory: 80, Internal Assessment: 20) Pass Marks 36%**

### **UNIT-I Information Technology-**

- Definition, need, scope and objectives.
- Historical background of computers.
- Generation of computers.
- Architecture CPU, Input/output devices.
- Hardware and software.
- Operating system-Ms-windows, UNIX, MS-DOS.

### **UNIT-II Networking-**

- Types of networks-LAN, WAN, MAN.
- Local Area Networks; LAN Topologies, Network Hardware- Network interface card, hubs/switches.
- Gateways/Bridges, routes, modem.
- Network Protocols- TCP/IP, Net-BUI, IPX.

### **UNIT-III Internet-Basic features and tools-**

- Connectivity- Dialup, Leased lines, Microwave, ISDN.
- Digital Subscriber Lines (DSL).
- E-mail-Protocols- Telnet, FTP, DTTP. Web browsers, Web servers, Search Engines, Keta Search,
- Web design- SGML, HTML, DHTML and XML.

### **UNIT-IV Data Base Management System-**

- Models- Hierarchical, Network, Relational and object oriented.
- Software- CDS/ISIS, SOUL.
- Structure Query Language. Artificial Intelligence.
- Digital libraries- definition, characteristics & attributes,
- Storage media formats- DVD.

### **UNIT-V Library Automation-**

- Planning and implementation of library automation.

- Automation of in- house operations- Acquisitions, Cataloguing, Circulation, OPAC Bar-coding.

## **Paper- IX (A) MANAGEMENT INFORMATION SYSTEMS.**

(Any one of the following)

**Full Marks: 100 (Theory: 80, Internal Assessment: 20) Pass Marks 36%**

- IX-A Management Information Systems.
- IX-B Business Information Systems.
- IX-C Biotechnology Information Systems.
- IX-D Health science Information Systems.
- IX-E Agricultural Information Systems.
- IX-F Social Science Information Systems.

**(Note- In the initial stage only one information system, i.e. “IX-A; Management information Systems” is being implemented.)**

**Paper – IX ELECTIVES; Information Systems (Any one of the following)**

### **UNTI-I**

- Definition, concepts, elements and objectives of M.I.S.
- Information and management effectiveness.
- Information needs and management levels,
- Features of MIS system approach to MIS.
- Properties of MIS.

### **UNIT-II**

- Structure of MIS.
- MIS and decision making.
- Planning for MIS-Systems analysis; Systems design.
- Techniques of system analysis; Techniques for MIS planning.

### **UNIT-III: Information Support System-**

- Management reporting systems (MRS);
- Decision Support Systems (DSS);
- Office Automation Systems (OAS);
- Knowledge Based Systems.

### **UNIT IV: Functional Informational Systems-**

- Financial Information Systems; Marketing IS; & Human resource IS.
- Implementation, Evaluation & Maintenance of MIS.

## **UNIT V**

- Role of Computer in MIS.
- Data Base Management.
- Data Base Software-Software needs selection and development.
- Data communication and networking.
- Using Information superhighways- Internet and Intranet.

### **PAPER- IX-B Academic Library and Information System**

#### **Unit – 1 Academic Library**

- History and Development of Libraries with special reference to India
- Role of Academic Library in Education
- Academic Library as a support System for Education

#### **Unit – 2 Development of Academic Library**

- Role of UGC in Promoting Academic Libraries, University College and other Institutions
- Role of library authorities of the Institutions in Promoting Library Resources
- Development of Library Services
- Financial Management of Academic Libraries

#### **Unit – 3 Collection Developments**

- Collection Development Policy, Weeding policy
- Problems in Collection Organization in an Academic Library
- Collection Development Programmes, Allocation of Funds to Collection Procurement,
- Curriculum and Collection Development
- Library Committees and their Role in Collection Development

#### **Unit – 4 Staffing and Staff Development for Academic Library**

- Norms and Patterns for Staffing in University, College and School Libraries
- Continuing Education Programmes for Academic Library Development
- Personal Management in Academic Library

#### **Unit – 5 Resource Sharing Programmes**

- Resource Sharing Services – its Objectives, Organization and Development
- INFLIBNET and its Implications to Library Resource Sharing
- Regional and City Network of Libraries and their Importance

### **PAPER- IX-C Archival, Museum and Archaeological Information System**

#### **Unit - 1 History and Development**

- History and Development and types of Archival Centers
- Kind and identification of Archival material

### **Unit-2 Organisation and Management of Archival and Manuscripts**

- Acquisition, Classification, Cataloguing and Indexing of Archival material
- Source material on Archival , Manuscripts
- Machine Readable and Microfilm of Archival records
- Database and Digitization of Archives
- Role of UNESCO and other agencies

### **Unit -3 Environment Control**

- Building Design
- Planning and furniture and Fillings
- Use of Copy Right to information in relation to archives

### **Unit - 4 Preservation of Archives**

- Objective and Purpose
- Cause of Deterioration
- Environmental Pollution : Physical , Chemical and Atmospheric
- Biological enemies of materials : Mould , Fungi , Insect and Rodents

### **Unit – 5 Rehabilitation of Documents**

- Cleaning, removal of Stains
- Fuming and deacidification
- Repair and restoration techniques
- Lamination
- Standards for Storage Conditions

## **PAPER- IX-D Agricultural Information System**

### **Unit - 1 Agriculture Education and Agriculture Libraries**

- Growth and development of Agriculture education and research in India
- Role of Library in Agricultural education, research and Extension
- Development of Agriculture Library in India

### **Unit – 2 Information Source and Services in Agriculture**

- Specialized Collection and Information Sources
- Information Service and products in Agricultural Science and Technology with
- Special reference to India
- Agriculture Information Centers - National and International

### **Unit-3 Organization and Management of Resources**

- General Principle of Information Management
- Information Organization , Processing and Dissemination
- Developing need based and on Demand Specialized Services

### **Unit – 4 Information Needs**

- Identifying special need of Agricultural faculty & research Staff
- User Studies of Local Agriculture Libraries

### **Unit - 5 Agriculture Information System and Networks**

- Current Trends in agricultural System and Networks
- Resource Sharing and Networking in Agricultural Libraries in India
- International Agricultural Database
- Professional Associations.

## **PAPER- IX-E Legal Information System**

### **Unit- 1 Law Librarianship**

- Growth and Development of legal Institutional in India
- Nature Principle and Characteristics of legal Information and Law Libraries
- Type of Law Library

### **Unit – 2 Information Source Collections**

- Special Information Sources : Bills , Acts , Books , Serials , Law Court notice ,
- Law case amendments
- Tribunal Report, Law Digests , Legal Judgment, Delegation Legislation
- Rules and orders , Legal information Sources and Lexicons

### **Unit - 3 Organizations and Management of Resources**

- Information Processing : Classification, Cataloguing and Indexing
- Developing special skills and Techniques to handle legal information ( personnel )
- Managing finance : Funds & Fund Generation

### **Unit – 4 Information need and services**

- Special needs of lawyers and legal Professionals
- Study of Law Information Centers ( Local )
- Special Services, Planning and design
- Preparation of rapports on Law Libraries ( Local )

- Dissemination methods and techniques

### **Unit - 5 Legal Information System & Networks**

- Legal information System :National and International
- Structure and their services
- Legal Database and Digital Libraries
- Resource and Networks of Legal Information

## **PAPER- IX-F Industrial Information System**

### **Unit - 1 Growth and Development of Industries & Industrialization Libraries**

- Industrial Growth in India
- Type of Industries: Government and Non-Government.
- Role of Libraries and Information Center in Industries
- Categories of Industrial Libraries

### **Unit – 2 Industrial Information Resource Collections**

- Tread Literature
- Patents
- Standards
- Technical Reports Bulletins

### **Unit – 3 Organizations and Management of Industrial Information**

- Special Classification Scheme and Indexing System
- Planning and Designing Specialized information services and Products
- System approach to Planning and Design and Implementation
- Managing personal Skills and Finance

### **Unit – 4 Information needs and Services of Industrial Libraries**

- Special Classification Schemes and Indexing System
- Case Studies and field Experience of local Industries
- Preparation of Report of an Industrial Library Survey (Local )
- Marketing of Information
- Computerized Information Service

### **Unit – 5 Industrial Information System and Network**

- Industrial Information Centers and Networks National and International
- (SENDOC)
- Structure and their services
- Industrial Databases

- Resource Sharing and Networking of Industrial Information Centers in India

**PAPER – X INFORMATION PROCESSING & RETRIVAL (PRACTICE- II)  
(AACR-2)**

**Full Marks: 100 (Theory: 80, Internal Assessment: 20) Pass Marks 36%**

**Cataloguing of Publications by AACR-2**