MASTER OF LIBRARY AND INFORMATION SCIENCE

The Course shall consist of two theory papers and three practice papers each of three hours duration. The Nomenclature of each paper along with the allotment of marks is as follows

ONE-YEAR FULL TIME PROGRAMME

SYLLABUS – FIRST SEMESTER

Paper No.	Nomenclature	Maximum Marks
6891	KNOWLEDGE AND COMMUNICATION	70+30=100
6892	INFORMATION TECHNOLOGY APPLICATION: THEORY	70+30=100
6893	KNOWLEDGE ORGANISATION (DEPTH CLASSIFICATION PRACTICE)	35+15=50
6894	INFORMATION PROCESSING & RETRIEVAL (ADVANCED CATALOGUE- PRACTICE)	35+15=50
60894	INFORMATION TECHNOLOGY APPLICATION: PRACTICAL	70+30=100

Dr. Ranganathan Institute of Library and Information Science

Faculty of Arts,

Bundelkhand University, Jhansi-284128

PAPER –I (6891)

KNOWLEDGE AND COMMUNICATION

UNIT I: UNIVERSE OF KNOWLEDGE

Universe of Subject: Attributes and Structure
Modes of Formation of Subject
Different types of subjects
Universe of Subjects as mapped in major schemes of Library Classification: CC, DDC and UDC

UNIT II: INFORMATION AND COMMUNICATION

Data – Definition, Properties, Types and Scope
Conceptual difference between Data, Information and Knowledge
Information- Definition, Characteristics, Need, Types, Theories and Approaches
Communication – Definition, Kinds, Elements, Channels and Barriers

UNIT III: KNOWLEDGE MANAGEMENT

Knowledge Management: Definition, Concepts, Principles and Tools
Role of Librarians in Knowledge Management
Subjects having Knowledge as their field of Study
Promoting Agencies of Knowledge
Modes of thinking: Authority-centered, Speculative and Positivistic

UNIT IV: INFORMATION AND SOCIETY

National Information Policy – Objectives and Development
Information Science and Information Industry
Right to Information in Indian context and National Knowledge Commission
Intellectual Property Rights and Indian copyright Acts

Recommended Books

1. **Ahuja, B.N. and S.S. Chopra**, 1989, *Communication*, New Delhi: Surjeet Publications.

2. **Beniger, J. R.** (1988). Information and Communication: The New Convergence. *Communication Research, 15* (2), 198-218.

3. **Ziman, J. M.** (1969). Information, Communication, Knowledge. *Nature, 224* , 318-324.

PAPER –II (6892)

INFORMATION TECHNOLOGY APPLICATION: THEORY

UNIT I: Web Technologies in Libraries

Implication of WWW on Library Websites, Web OPACs

Web 2.0 and Web 3.0: Features and Functions

Web Directories, Subject Gateways, Library Portals, etc.

Weblogs (blogs), Podcasts, RSS Feeds, Instant Messaging, Wikis, Flickr, etc.

UNIT II: NETWORK TECHNOLOGY

Network: Concept, Types, Media, Topologies, Tools and Services

Data Networks: ISDN, DSL, ATM, (Asynchronous Transfer Mode) Broadband, Wireless Networking,

OSI Network Model and TCP/IP Reference Model.

Internet: Genesis, Connectivity, Protocols and Security.

Web Browsers, Web Search Engines: Types and Evaluation

UNIT III: DIGITAL LIBRARY

Digitization: Concept and Requirements

Digital Libraries: Genesis, Definition, Planning, Promises, and Challenges and Implementation

Metadata: Concept, Types, Metadata Standards: Dublin core

Study of Digital Library Software: GSDL, DSpace, and so on.

Federated Search and Multimedia Databases Search.

Protocols: Z39.50 Standard for Retrieval and OAI-PMH

UNIT IV: EMERGING TECHNOLOGIES IN LIBRARY SERVICES

RSS Feeds Technology

Library Security Technology: Bar Code, RFID, Smart Card and CCTV.

Digital Content Management System

Video Conferencing and Audio Conferencing.

Institution Repositories

Functional Requirements for Bibliographic Records (FRBR)

Artificial Intelligence and Libraries

Expert Systems in Libraries

Recommended Books

1. **BRADLEY (Phil)**. How to use web 2.0 in your library. 2007. Facet Publishing, London.

2. **CLYDE (Laurel)**. Weblogs and libraries. 2004. Chandos Publishing, Oxford.

3. **EVANS (Woody)**. Building library 3.0: issues in creating a culture of participation. 2009. Chandos Publishing, Oxford.

4. **GRIFFITHS (Peter)**. Managing your internet and intranet services: the information professional's guide to strategy. Ed.2. 2004. Facet Publishing, London.

5. **JANCZEWSKI (Lech)**. Internet and intranet security management: risks and solutions**. 2000. Idea, Hershey**.

6. **KROSKI (Ellyssa)**. Web 2.0 for librarians and information professionals. 2008. Neal Schuman Publishers, New York.

7. **LIU (Jia)**. Metadata and its applications in the digital library: approaches and practices. 2007. Libraries Unlimited, Westport.

8. **PRIMARY RESEARCH GROUP STAFF**. Academic library websites benchmarks. 2008. Primary Research Group, New York.

9. **VINCE (J)**. Introduction to virtual reality. 2004. Springer, London.

10. **WISE (Richard)**. Multimedia: a critical introduction. 2000. Routledge, London.

PAPER –III (6893)

KNOWLEDGE ORGANISATION (DEPTH CLASSIFICATION

PRACTICE)

Classification of Documents Representing Compound and Complex Subjects using Universal Decimal Classification, 3rd abridged ed.1961.

Recommended Books

1. **FOSKET (A C)**. Universal Decimal Classification. 1973. Clive Bingley, London.

2. **McLLWAINE (I C)**. The Universal Decimal Classification: a guide to its use.

2007. UDC Consortium, The Hague, Netherlands.

3. **UNIVERSAL DECIMAL CLASSIFICATION**. (Latest Edition). British standards institution, London.

PAPER –IV (6894)

INFORMATION PROCESSING & RETRIEVAL (ADVANCED

CATALOGUE- PRACTICES)

Practical cataloguing of Complex Periodical and documents involving complicated corporate author headings according to AACR-II

Cataloguing of complicated cases of multivolume works and composite works according to AACR-II.

Cataloguing of Non-Book Material according to AACR-II- Cartographic material, sound recording, motion pictures, microforms, video recording Computer files, Web Resources, Graphic Materials etc.

Recommended Books

1. **AMERICAN LIBRARY ASSOCIATION**. Anglo-American Cataloguing Rules. (Latest Edition). Library Association, London.

2. **LIBRARY OF CONGRESS SUBJECT HEADINGS** (Latest Edition). Library of Congress, Washington.

3. **WILKIE (Chris)**. Managing film and video collections. 1999. ASLIB, London.

PAPER –V (60894)

INFORMATION TECHNOLOGY APPLICAION: PRACTICAL

UNIT I

Web Page Designing: HTML & CSS.

Database development for libraries using any RDBMS.

Database Searching

Advanced Database Services

UNIT II

Installation and Configuration, Hands on Functional Modules of an Integrated Library Management System (Open Source and Commercial)

KOHA, SOUL, GSDL

Downloading MARC 21 Records using Z39.50 Protocol

UNIT III

Audio Conferencing, Video Conferencing

UNIT IV

Internet: Search Engine

Databases of various subject areas and their searching

Recommended Books

1. **BATES (Chris)**. XML in theory and practice. 2003. John Wiley, Chichester.

2. **BRADLEY (Phil)**. How to use web 2.0 in your library. 2007. Facet Publishing, London.

3. **COX, (Christopher N)**. Federated search: solution or setback for online library services. 2006. The Haworth Press, Philadelphia.

4. **DONNELLY (V)**. Designing easy-to-use websites: a hands-on-approach to structuring successful websites. 2000. Addison-Wesley, Boston.

5. **LOWERY (Joseph W)**. Dreamweaver MX bible. 2002. Wiley Publishing, Indianapolis.

6. **LYNCH (P J) and HORTON (S)**. Web style guide: basic design principles for creating web sites. Ed.3. 2009. Yale University Press, London.

7. **McCLELLAND (Deke)** . Photoshop 7 bible. 2003. Wiley Publishing, New York.

8. **SIMMONS (Curt)**. Microsoft office front page 2003 bible with CDROM. 2003. Wiley Publishing, Indianapolis.

9. **ULLMAN (Larry)**. Building a web site with ajax: visual quickpro guide. 2007. Peachpit Press, Berkeley.

10. **WITTEN (Ian H), BODDIE (Stefan)** and **THOMPSON (John)**. Greenstone digital library user's guide. 2006. New Zealand Digital Library Project, New Zealand.

MASTER OF LIBRARY AND INFORMATION SCIENCE

The Course shall consist of four theory papers each of three hours duration. The Nomenclature of each paper along with the allotment of marks is as follows

ONE-YEAR FULL TIME PROGRAMME

SYLLABUS – SECOND SEMESTER

Paper No.	Nomenclature	Maximum Marks
6896	INFORMATION STORAGE AND RETRIEVAL TECHNIQUES (THEORY)	70+30=100
6897	RESEARCH METHODS AND STATISTICAL TECHNIQUES	70+30=100
6898	INFORMATION SYSTEMS AND PROGRAMMES	70+30=100
6899	MARKETING OF INFORMATION PRODUCTS AND SERVICES	70+30=100

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PAPER –VI (6896)

INFORMATION STORAGE AND RETRIEVAL TECHNIQUES (THEORY)

UNIT I

Fundamentals of Retrieval System: Nature and Characteristics.

Objective and Design of Information Storage and Retrieval System.

Compatibility and Evaluation of ISAR System

Thesaurus: Need, Structure and Construction

UNIT II

Tools of Information Retrieval: Classification Schedules, Cataloguing, Subject Heading Lists, Indexing, Abstracting, On-Line retrieval, Universal Bibliographical Control

UNIT III

Subject Indexing: Concept and Development.

Pre-coordinate Indexing System: Chain Indexing, PRECIS and POPSI.

Post-Coordinate Indexing: Uniterm Optical Coincidence, Edge-notched Card System, KWIC and KWOC. Evaluation of Indexing Systems

Citation Indexing

UNIT IV

Search Techniques and Information Retrieval

Search Strategy: Boolean Operations, Proximity Search, Heuristic Search, Navigational Search etc., Search Process, I.R. Models.

Man and Machine Retrieval System.

Internet Searching and Meta Search Engines

Data Mining, Data Harvesting and Semantic Web

Recommended Books

1. **CHOWDHURY (G G)**. Introduction to modern information retrieval. 1999. Library Association, London.

2. **CLEVELAND (Donald B)** and **CLEVELAND (Ana D)**. Introduction to indexing and abstracting. 2001. Libraries Unlimited, Colorado.

3. **FOSKETT (A C)**. Subject approach to information. Ed.5. 1996. Library

Association, London.

4. **GOSH (S N)** and **SATPATHI (J N)**. Subject indexing system: concepts, methods and techniques. 1998. IASLIC, Calcutta.

5. **KORFHAGE (R R)**. Information storage and retrieval. 1997. John Wiley, New

York, USA.

6. **LANCASTER (F Wilfred**). Vocabulary control for information retrieval. Ed. 2.

1985. Information Resource Press, Arlington.

7. **LANCASTER (F Wilfred**). Indexing and abstracting in theory and practice. Ed. 3. 2003. University of Illinois, Urbana.

8. **ROWLEY (J)**. The basics of information system. Ed. 2. 1996. Library

Association, London.

9. **SOERGEL (D)**. Indexing languages and thesauri: construction and maintenance. 1974. John Wiley and Sons., New York.

10. **WALKER (G)** and **JANES (J)**. Online retrieval: a dialogue of theory and practice. 1993. Libraries Unlimited, Englewood, London.

PAPER –VII (6897)

RESEARCH METHODS AND STATISTICAL TECHNIQUES

UNIT I: RESEARCH

Research: Concept, Need, Purpose and Types

Research Design: Concept, Types and Designing Research Proposal

Literature Review

Hypothesis: Definitions, Functions, Sources and Types

UNIT II: RESEARCH METHODS

Spiral of Scientific Methods (S.R.Ranganathan)

Research Methods: Historical, Survey, Descriptive, Experimental and Case Study

Bibliometric Studies: Concept and Definition, Bibliometric Laws and their Applications

Scientific and Statistical Research: Scientometrics, Infometrics and Webometrics

UNIT III: RESEARHCH TECHNIQUES AND TOOLS

Questionnaire, Interview, Observation, Schedule and Check List

Library Records and Reports, Sampling Techniques

Report Writing: Meaning, Purpose, Part, Types, Structure Style and Contents

Referencing Styles: APA, MLA etc.

UNIT IV: STATISTICS AND ITS APPLICATIONS

Presentation of data: Tabular, Graphical & Diagram.

Descriptive Statistics- Measures of Central Tendency- Mean Median and Mode. Measures of Dispersion – Range, Quartile Deviation, Mean Deviation, Variance, Standard Deviation.

Correlation Analysis.

Regression Analysis - Linear and Non –Linear.

Hypothesis Testing: Chi-Square Test, t-test, z-test, f-test

Statistical Packages- MS Excel, SPSS, and Web-based Statistical Analysis Tools,

Recommended Books

1. **ALVESSON (M)** and **SKOLDBERG (K)**. Reflexive methodology: new vistas in qualitative research. Ed. 2 Rev. 2009. Sage Publication, London.

2. **BUSHA (C H)**. Research methods in librarianship. 1990. Academic Press, New York.

3. **GOODE (W J)** and **HATT (P K)**. Methods in social research. 1982. McGraw-Hill, New York.

4. **GREENFIELD (T)**. Research methods: guidance for postgraduates. 1996. Hodder Arnold, London.

5. **KRISHAN KUMAR**. Research methods in library and information science. Rev. Ed. 1999. Har-Anand Publications, New Delhi.

6. **LANCASTER (F W)** and **POWELL (R R)**. Basic research methods for librarians. 1985. Ablex publishing, New Jersey.

7. **POWELL (R R)** and **SILIPIGNI (C L)**. Basic research methods for librarians. Ed. 4. 2004. Libraries Unlimited, Westport.

8. **SINGH (S P)**. Research methods in social sciences: a manual for designing questionnaires. 2002. Kanishka, New Delhi.

9. **SLATER (M), Ed**. Research methods in library and information studies. 1990. Library Association Publishing, London.

10. **YOUNG (P V)**. Scientific social survey and research. Rev. Ed. 4. 1984. Prentice Hall, New Delhi.

PAPER –VIII (6898)

INFORMATION SYSTEMS AND PROGRAMMES

UNIT I: INFORMATION SYSTEMS AND ORGANISATIONS

Information Systems: Basic Concept, Types, Characteristics and Components.

Information Organization as a System: Libraries, Documentation and Information Centers, etc.

Different Types of Documentation and Information Centers: Data Bank, Data Centre, Referral Centre, Clearing House and Invisible Colleges, etc.

Archives & Translation Pools: Functions & Services

UNIT-II: NATIONAL INFORMATION SYSTEMS

Planning and Designing of National Information System

Study of National Information Systems in India: NASSDOC, NISCAIR, ENVIS, DESIDOC, NIC AND SENDOC, ETC.

UNIT III: INTERNATIONAL INFORMATION SYSTEMS

Study of Regional and International Information Systems: SAARC, MEDLARS, AGRIS, INIS, INSPEC, DEVSIS

Programmes & Activities of UNESCO, UNISIST and IFLA etc.

UNIT IV: INFORMATION POLICY, LIBRARY NETWORKS & LIBRARY

CONSORTIA

Information Policies on Library and Information Systems and Services in India.

Role of Information Systems and Networks in Technology Transfer and National Development.

Programmes and Activities of INFLIBNET and DELNET.

E-Journals Consortium: UGC-INFONET, CSIR e-journal consortia INDEST and Recent trends

Recommended Books

1. **ATHERTON (Pauline)**. Handbook for information system and services. 1997. UNESCO, Paris.

2. **BAMAN (P)**. Studies on information systems, services and programs in India and abroad. 1993. Ajanta, Delhi.

3. **BARUA (B P)**. National policy on library and information systems and services for India: perspectives and projections. 1992. Popular Prakashan, New Delhi.

4. **BURCH (J G)** and **GRUDNITSKI (G)**. Information systems: theory and practice. 1986. Wiley, Singapore.

5. **KENT (A)**. Resource sharing in libraries: why, how, when next action step. 1974. Marshal Dekker, New York.

6. **KOCHTANEK (T R)** and **MATTHEWS (J R)**. Library information systems: from library automation to distributed information access solutions. 2002. Libraries Unlimited, West Westport.

7. **NEELAMEGHAN (A)** and **PRASAD (K N), Eds**. Information systems, networks and services in India. 2 vols. 1998. Ranganathan Centre for Information Studies, Chennai.

8. **ROWLEY (J)**. The basics of information system. Ed 2. 1996. Library Association, London.

9. **VICKERY (B C)**. Information systems. 1973. Butterworths, Washington.

PAPER –IX (6899)

MARKETING OF INFORMATION PRODUCTS AND SERVICES

UNIT I: FUNDAMENTAL CONCEPTS

Marketing: Concept, Definitions, Need, Objectives and Benefits.

Marketing Environment: Producer of Inf. Product & Services, Consumer- Buyer Behaviour, Maslow theory of motivation.

Marketing Information System, Market Segmentation

Marketing Mix

UNIT II: STRATEGIES AND TECHNIQUES

Marketing Planning: Strategic and tactical planning, SWOT analysis, PERT/CPM and Six Sigma Techniques.

Marketing Research: Concept, types, need and purpose.

Marketing Research Process, Product Planning Concept.

UNIT III: INFORMATION RE-PACKAGING, ANALYSIS AND CONSOLIDATION

Packaging and Repackaging: Concept, Need and Purpose

Information Analysis and Consolidation Center (IAC): Concept, Need, Purpose and Function.

Information Consolidation Products (ICP): Concept, Need and Purpose. Different Types of Information Products. Role of Specialist in the preparation of Information Consolidation Products.

UNIT IV: MARKETING OF LIS PRODUCTS AND SERVICES

LIS Products and Services as a Marketable Commodity

Pricing, Distribution Channels and Communication Strategies

Advertising, Sales Promotion, Public Relations

E-Marketing

Recommended Books

1. **BAKEWELL (K G)**. Managing user-centred libraries and information services. Ed. 2. 1997. Maxwell, London.

2. **BUTCHER (Helen).**Meeting manager's information needs.1998. ASLIB, London.

3. **CARPENTER (J)** and **DAVIES (R).** Quantification of the overseas consulting market for professional consultancy services in librarianship and information science and information management. 1992. Research and Development, British Library, London.

4. **COOTE (Helen)** and **BATCHELOR (Bridget)**. How to market your library services effectively. Ed. 2. 1997. Aslib, London.

5. **GUPTA (D K), et al**. Marketing library and information services: international perspectives. 2006. K.G. Saur, Munich.

6. **HELINSKY (Z)**. A short-cut to marketing the library. 2008. Chandos Publishing, Oxford.

7. **JAIN (Abhinandan K), et al**. Marketing information products and services: a primer for libraries and information professionals. 1999. Tata McGraw-Hill, New Delhi.

8. **KOTLER (Philip)**. Marketing management. Ed.12. 2002. Prentice Hall, Delhi.

9. **KOTLER (Philip)** and **ARMSTRONG (Gary)**. Principle of marketing. Ed. 7. 1996. Prentice- Hall of India, New Delhi.

10. **ROWLEY (Jenifer)**. Information marketing. 2001. Ashgate, London.