

# Savitribai Phule Pune University

(Formerly University of Pune)

## Syllabus for M.Phil./ Ph.D. (PET) Entrance Exam Library & Information Science

### Research Methodology : Ph.D.

#### Unit 1: Basics of research:

1. Meaning, characteristics, need/importance, types of research: basic and applied
2. Scientific method: characteristics, inductive and deductive methods
3. Research ethics: ethical research practices, plagiarism
4. Impact factor, h-index
5. Validity, reliability, variables (dependent, independent, extraneous)

#### Unit 2: Steps in research

1. Research problem- identification and formulation
2. Research proposal, contents
3. Hypothesis: need, types, testing
4. Literature review: types of literature (primary and secondary, print and electronic), types of review (thematic, chronological)
5. Statistical techniques: frequency distribution, measure of central tendency, standard deviation, measure of dispersion, variance, correlation, regression, Z-test, T-test, Chi-square test; graphical presentation of data

#### Unit 3: Research methods:

1. Survey, pilot survey
2. Case study
3. Experimental
4. Historical
5. Delphi and content analysis
6. Bibliometrics, scientometrics, webometrics, Altmetrics, citation analysis

#### Unit 4: Data collection techniques and tools

1. Types of data, measurement scales
2. Questionnaire
3. Interview, focus group
4. Observation
5. Sampling technique: sample size, sampling errors, sampling methods or types

#### Unit 5: Research reporting

1. Thesis: structure and contents
2. Research article: structure and contents
3. Citation styles: APA, Chicago, MLA, reference management software
4. Citation of various types of documents
5. Thesis evaluation, criteria

# **Subject Concerned Syllabus**

## **Library & Information Science (Ph.D.)**

### **Unit 1: Foundation of Librarianship**

1. History of Libraries
2. Laws of Library Science: Dr. S.R. Ranganathan,
3. Principles of Donald Urqhart
4. Information: Contributions of Belkin, Robertson, Derwin, DIKW model
5. Information communication-channels, barriers
6. Resource Sharing
7. IPR
8. Public libraries, legislation, NKC, library and information associations, professionalism

### **Unit 2: Information Sources and services**

1. Primary, secondary and tertiary
2. Electronic information sources, databases: features, pricing models, open access resources, institutional repositories, usage data, consortia, evaluation of electronic information sources
3. CAS, SDI, Referral, Reader's advisory service, digital reference service

### **Unit 3: Knowledge Organization**

1. Universe of Subjects: structure and attributes, modes of formation of subjects
2. Classification schemes: history, development, current status
3. Bibliographic record formats, AACR2R, MARC21, FRBR, RDA, Metadata
4. Indexing system, search strategies, Information Retrieval and models
5. vocabulary control: thesaurus, taxonomies, ontologies, folksonomies

### **Unit 4: Management of Libraries**

1. Collection development: selection, acquisition, evaluation, weeding out
2. History of management thoughts
3. Financial management, budgeting, cost-benefit and cost effectiveness analysis
4. Human resource management
5. TQM, PERT/CPM, Marketing of library and information services/products, reengineering, six sigma

### **Unit 5: Application of Information Technology in Libraries**

1. Library Automation,
2. Networking, Components of Network, Internet Protocols
3. OSI Model
4. Digital libraries, Metadata, Metadata Standards etc.
5. Software: Library management software, Software for institutional repositories,
6. Barcode, RFID, cloud computing,
7. OPAC, discovery services/federated search services, Internet, internet security,
8. Web 2.0 and its Components, Application of web 2.0 tools in Libraries
9. Cloud Computing, MOOC
10. New Trends in IT

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## **Library & Information Science (M.Phil.)**

### **Unit I**

Intellectual Property Rights-Concept, Censorship-Print and Non-Print Media,  
Library and Information Policy at the National Level  
LIS Education in India  
LIS Profession  
Library & Information Services  
Role of UGC in the growth and development of Libraries and information centres in  
institutions of higher education in India.  
Information Literacy.

### **Unit II**

Vocabulary Control-Thesaurus, List of Subject Headings  
Databases-Search Strategies, Boolean Operators  
Knowledge management  
Information Processing & Organization  
Current Trends in Information Storage & Retrieval

### **Unit III**

Financial management-Resource Generation, Cost-Benefit analysis PERT, CPM  
Performance Evaluation of Library & Information centres and Services  
Marketing of Information Products and Services  
Total Quality Management (TQM)  
New Techniques in Library management.

### **Unit IV**

Impact of IT on Library.  
Library Networking & Networks,  
Network Topologies  
Hypertext, Hypermedia, Multimedia  
Integrated Services Digital Network (ISDN), Open System Interconnection (OSI)  
Digital Library, Virtual Library  
Electronic Documents  
Library Automation  
Internet Components, Services, Browsing-web Browsing, Search Engines Meta-data, Digital  
Object Identifier (DOI)  
Metadata, Institutional Repository, Open Source Software, Web 2.0  
Current trends in IT