# DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE MAHARSHI DAYANAND UNIVERSITY, ROHTAK

# PhD Program in Library and Information Science

#### **Program Specific Outcomes (PSOs)**

At the end of the program, the student learns:

- **PSO<sub>1</sub>**. The research basics of library and information science in terms of theory and practice will be achieved
- **PSO<sub>2</sub>**. Lean to achieve, the different types of research and its practical utility in the society and the course further helps in knowing the recent trends in the field also
- **PSO<sub>3</sub>**. The uniqueness of the course is so diversified new research techniques i.e., bibliometrics and scientometrics will be achieved
- **PSO<sub>4</sub>**. The students are trained to handle all kinds of statistical techniques including the primary and advanced level including managerial skills
- **PSO<sub>5</sub>.** The usability of the research methods is so high that similar methods can be used in different situations other than library and information environment
- **PSO<sub>6</sub>.** Training in research ethics will help in future when the students do research on community, ethnic and health related field

# Scheme of Examination PhD Course Work in Library and Information Science

(As per credit system w.e.f. the academic year 2016-17)

Note: The course work will be of one semester. Each student has to earn 12 credits in the course.

Sem	Paper Code	Nomenclature	L-T-P	Marks			Duration	Credits
				Internal Assessment	Exam Marks	Total Marks		
Ι	17LIBPC11C1	Research Methodology	4-0-0	20	80	10	3 hrs	4+0+0=4
	17LIBPC11C2	Computer Applications in Library and Information Science	4-0-0	20	80	10	3 hrs	4+0+0=4
	17LIBPC11C3	Emerging Trends in Library and Information Science	4-0-0	20	80	10	3 hrs	4+0+0=4
Credits		C=12	•	•	•	То	tal Credits:	12

# 17LIBPC11C1: RESEARCH METHODOLOGY

# **Course Outcomes (COs)**

The students will be able to know:

- CO1: the basics of research methods in terms of types, category and its usability;
- CO2: how to examine major concepts of research approach in terms of qualitative, quantitative and mixed;
- CO3: information about different types of statistical methods and usability;
- CO4: research ethics and applicability in different situations;
- CO5: the use of special software to handle the complex statistical situation.

Maximum marks: 80 Pass marks: 32 Time: 3hrs.

#### Note

The paper is divided into 4 units. The candidates are required to attempt 5 questions in all, selecting 1 question from each unit, out of two internal choices. Question 1 is compulsory consisting of 8 short answer type questions, spread over the whole syllabus. All questions carry equal marks.

# Unit 1: Research

- Research: Meaning, Definition, Importance, Characteristics
- Types of Research: Pure, Applied and Action Research
- Research Ethics
- Literature search Print, Non-print and Electronic sources

# **Unit 2: Research Design**

- Research Design: Concept, Need and Purpose
- Types of Research Design
- Hypothesis formulation

# **Unit 3: Research Methods, Tools and Techniques**

- Research Methods: Scientific, Historical, Case Study, Survey, Experimental
- Research Tools: Questionnaire, Interview, Schedule, Observation
- Sampling Techniques

# **Unit 4: Statistical Techniques**

- Measures of Central Tendency: Mean, Median, Mode
- Measures of Dispersion, Variance and Covariance
- Standard Deviation
- Presentation of Data: Tabular, Graphic, Bar Diagram, Pie Chart, etc.
- Data Analysis: Use of SPSS

## **Suggested Reading:**

- 1. Busha, C.H and Harter, S.P. Research methods in librarianship: Techniques and interpretation. New York: Academic Press, 1980.
- 2. Goode, W.J. and Hatt, P.K. *Methods in social science research*. New Delhi: McGraw Hill, 1986.
- 3. Krishan Kumar. *Research methods in library and information science*. New Delhi: Vikas Publishing House, 1992.
- 4. Kumar, P. S. G. *Research methods and statistical techniques*. Delhi; B. R. Publishing Corpn., 2004.
- 5. Leddy, Paul D. Practical research: Planning design. London, Clive Bingley. 1980.
- 6. Rao, I. K. Ravichandra. *Quantitative methods in library and information science*. New Delhi: Wiley Eastern, 1983.
- 7. Slater, Margaret, ed. *Research methods in library and information studies*. London: Library Association, 1990.
- 8. Stevens, R.E. Ed. Research methods in librarianship. London, Clive Bingley, 1971.

# 17LIBPC11C2: COMPUTER APPLICATIONS IN LIBRARY AND INFORMATION SCIENCE

#### **Course Outcomes (COs)**

The students will be able to know:

- CO1: the computer basics in terms of software and hardware;
- CO2: major areas of computer applications in handling library operations;
- CO3: about software handling;
- CO4: about use of internet and e-resources;
- CO5: about modern computing techniques used in blog, websites and other social networking platforms.

Maximum marks: 80 Pass marks: 32 Time: 3hrs.

#### Note

The paper is divided into 4 units. The candidates are required to attempt 5 questions in all, selecting 1 question from each unit, out of two internal choices. Question 1 is compulsory consisting of 8 short answer type questions, spread over the whole syllabus. All questions carry equal marks.

## **Unit 1: Library Automation**

- Library Automation: Definition, Need and Purpose
- Planning and Implementation of Library Automation
- Automation of Library Housekeeping Operations
- Library Application Software Packages: SOUL, LIBSYS, WINISIS

# **Unit 2: Communication Technology**

- Communication Technologies: Media and Mode
- Network Types: LAN, MAN, WAN
- Network Topologies
- Components of LAN: Servers, PCs etc., Network Interface Card, Hubs, Routers, Modems, UPSs

# **Unit 3: Library Networks and Consortia**

- Library Networks in India- DELNET, INFLIBNET
- Library Networks at International Level: OCLC, JANET, RLIN
- Library Consortia in India: UGC-INFONET, INDEST

# Unit 4: Internet

- Internet Services
- Internet Protocols: FTP, HTTP

- Standards: OSI Reference Model
- Web Tools: Web browsers (Netscape, Internet Explorer, etc.), Search Engines (Google, Yahoo), E-mail
- Internet Security

# **Suggested Reading:**

- 1. Bala, Krishnan Shyama and Paliwal, P. K., ed. *Networking and the future of libraries*. New Delhi: Anmol Publishing, 2001.
- 2. Basandra, Suresh K. *Computer today*. New Delhi: Galgotia Publication Pvt. Ltd., 1998.
- 3. Bradley, P. *World Wide Web: How to design and construct web pages.* 2nd Ed. London: ASLIB, 2000.
- 4. Forouzan, B. A., Coombs, Catherine and Fegan, S. C. *Data communication and networking*. 2<sup>nd</sup> ed. New Delhi: Tata McGraw-Hill, 2000.
- 5. Jeanne, F. M. A librarian's guide to the Internet: A guide to searching and evaluating *information*. Oxford: Chandos publishing, 2006.
- 6. Tedd, Lucy, A. An Introduction to computer based library system. 3<sup>rd</sup> ed. Chinchester: Wiley, 2005.
- 7. Rowley, J. *The electronic library*. 4<sup>th</sup> ed. London: LA, 1998.
- 8. Stallings, William. *Data and computer communications*. 6<sup>th</sup> ed. New Delhi: Pearson Education Asia, 2001.
- 9. Yadav, D. S. *Foundations of information technology*. New Delhi: New Age International (P) Ltd, Publishers, 2006.
- 10. Zorkoczy, Peter. Information Technology: An introduction. London: Otiman, 2005.

# 17LIBPC11C3: EMERGING TRENDS IN LIBRARY AND INFORMATION SCIENCE

## **Course Outcomes (COs)**

The students will be able to know:

- CO1: the general trend in which the discipline of LIS is moving;
- CO2: to identify major areas in which the researchers are doing research;
- CO3: the doctoral contribution in the field in terms the research guide and their field of research;
- CO4: the professional developments in the profession;
- CO5: the employability areas and to thrive on it.

Maximum marks: 80 Pass marks: 32 Time: 3hrs.

#### Note

The paper is divided into 4 units. The candidates are required to attempt 5 questions in all, selecting 1 question from each unit, out of two internal choices. Question 1 is compulsory consisting of 8 short answer type questions, spread over the whole syllabus. All questions carry equal marks.

# **Unit 1: Digital Libraries and Institutional Repositories**

- Digital Library- Genesis, Definition, Objectives and Scope
- Digitization process: Input Capture Devices
- Digital Library Software: Greenstone and Dspace
- Metadata: Types, Dublin Core
- Institutional Repositories: Concept, Need

# **Unit 2: Information Society**

- Information Society- Genesis, Characteristics and Implications
- Changing Role of Library and Information Centres in Society
- Information Industry: Generators, Providers and Intermediaries

# **Unit 3: Electronic Resources**

- Electronic Resources- Concept, Features, Characteristics
- Types of Electronic Resources
- Collection Development of Electronic Resources
- Access Channels for Electronic Resources

# **Unit 4: Information Services and Information Literacy**

- Information services: Concept, Definition, Need
- Alerting services: Computerized CAS and SDI
- Information Literacy: Concept, Definition, Need
- ACRL Standards for Information Literacy

• Information Literacy Models

# **Suggested Reading:**

- 1. Eisenberg, Michael. *Information literacy: Essential skills for the information age*. 2<sup>nd</sup> ed. Westport Publ.: Libraries Unlimited, 2005.
- 2. Jaswal, D.S. *Recent trends in library and information science*. Chandigarh: Arun Publishing House, 2008.
- 3. Rydberg-Cox, Jefery A.. *Digital libraries and the challenges of digital humanities*. Oxford: Chandos Publishing, 2006.
- 4. Katz, Linda S. *Collection development policies: New dimension for changing collections*. London: Roultedge, 2003.
- 5. Lal, C, ed. *Information literacy in the digital age*. New Delhi: Ess Ess Publications, 2008.
- 6. Lancaster. F.W. *Electronic publishing and their implications for libraries and beyond*. London: Clive Bingley, 1990.
- 7. Martin, William J. The information society. London: Aslib, 1988.
- 8. Prasher, R.G. Information and it communication. New Delhi: Medallion Press, 1991.
- 9. Richard Jones. The institutional repository. Oxford: Chandos publishing, 2006.
- 10. Ramaiah, L.S, Reddy, Sankara and Hemant Kumar. *E-libraries: Problems and perspectives*. New Delhi: Allied Publishers, 2007.