

School of Library and Information Science

PG DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING

(PGDLAN)

SYLLABUS

LAN-01 : ICT FUNDAMENTALS

BLOCK - I

Basics of Computers: Computers and their Components- Elements of Data Communication – Storage Media- Need for Computerization of Library.

BLOCK – II

Software: System and Application Software – Operating Systems - Windows, Unix & Linux.

BLOCK – III

Computer and Society: Information Society- National Information Infrastructure (NII) – Technological convergence.

REFERENCES:

1. Balagurusamy, E. (2010). *Fundamentals of computers*. New Delhi : Tata McGraw Hill Education. Pvt. Limited.
2. Karumanchi , Narasimha (2011). *Data Structures and Algorithms Made Easy : Data Structure and Algorithmic Puzzles. 2nd Eedition*. Career Monk Publications.
3. Patrick, Schaumont (2013). *A Practical Introduction to Hardware / Software Code sign*.New York : Springer
4. Prasher, R.G. (2003). *Indian Libraries Environment* Ludhiana : Medallion Press.

LAN-02: LIBRARY AUTOMATION

BLOCK – I

Introduction to Library Automation: Historical Perspective, Need and Purpose- Approaches to

Library Automation.

BLOCK – II

Management of Library Automation: Planning - Formats and Standards- Retrospective conversion, Implementation and Evaluation.

BLOCK – III

House –Keeping Operations: Automation of Acquisition- Automation of Serials Control- Automation of Cataloguing and Circulation

BLOCK – IV

Computerised Information Services: Alerting Services-Bibliographic Services – Document Delivery Services – Reference Services.

REFERENCES:

1. Cooper, M.D. (1996). *Design of Library automation systems: File structures, data structures and tools*. New York: John Wiley.
1. Dhiman, A.K.(2003). *Basics of Information Technology for Librarians and Information Scientists*. Ess Ess Publication.
2. Haravu, L.J. (2004). *Library automation: design, principles and practice*. Delhi: Allied
3. Hayss, Robert M. (2001). *Models for Library Management, Decision-Making and Planning*. New York: Academic Press.
4. Jeanne, F.M. (2006). *A librarian's guide to the Internet: A guide to searching and evaluating Information*. Oxford: Chandos Publishing.

LAN-03: INFORMATION SYSTEMS MANAGEMENT

BLOCK – I

Systems Analysis and Design: General Systems Theory -Information System Design and Development

BLOCK – II

Types of Information Systems: Information Retrieval Systems -Database Management Systems (DBMS)- Management Information Systems and Decision Support Systems – Knowledge Based Retrieval Systems.

BLOCK – III

Data Models and Database Design: Data Structures and File Organisation – Data Models– Database Architecture - Database Systems

BLOCK – IV

Query Language and Query Processing: Query Language –Structured Query Formulation – Boolean operators.

REFERENCES:

- 1, Bansal, S.K. (2005). *Information Technology and Globalisation*. New Delhi: A.P.H. Publishing Corporation
1. Kashyap, M.M. (2003). *Database systems*. New Delhi: Vikas.
2. Marakas, G. M. (2003). *Decision support systems in the 21st century* (Vol. 134). Upper Saddle River, NJ: Prentice Hall.
- 3, O'Brien, J.A., & Marakas, G.M. (2011). *Management Information Systems*. 10e. McGraw-Hill Irwin.
4. Sprague, R. H., & Watson, H. J. (Eds.). (1986). *Decision support systems: putting theory into practice*. Englewood Cliffs, NJ: Prentice-Hall.
5. Turban, E. (1988). *Decision support and expert systems: Managerial perspectives*. New York: Macmillan.

LAN-04: NETWORKING AND INTERNET RESOURCES

BLOCK – I

Introduction to Networks: Types of Networks- Network Technology - Data Networks – Network Software

BLOCK – II

Library and Information Networks: Resource Sharing Technology – Library and Information Network - Overview and Management - Network-based Information Services

BLOCK – III

Internet Resources: Types of Resources - Meta Resources-Internet Information Resources and Evaluation- Digital Library - An Overview

BLOCK – IV

Types of Resources by Subject: Science and Technology -Social Sciences- Humanities

REFERENCES:

- 1.Comer, Douglas E.(2013). *Internetworking with TCP/IP, Volume-I*, 6th ed.
New Delhi : Prentice Hall, India.
- 2.Gmob, W. A. (2014). *Database Management System-Simple n easy Book*.
- 3.Janczewski , Lech (2000). *Internet and intranet security management: risks and solutions*. Idea : Hershey.
- 4.Rajaraman, V. (2007). *Introduction to Information Technology*. New Delhi : Prentice- Hall of India.

LAN-05 :CONTENT DEVELOPMENT

BLOCK – I

Content Analysis: Content Analysis - Concept and Scope- Content Analysis - Quantitative and Qualitative Aspects - Content Organisation- Content Analysis - Applications (Generation of Information Services and Products)-Knowledge Management – Introduction.

BLOCK – II

Content Development:Content Development - Context Setting – Norms and Guidelines for Content Development- HTML and XML – Introduction Unit – IV Web-based Content Development-Intellectual Property Rights - Legal and Ethical Issues

REFERENCES:

1. Arthur, M.H. (2006). *Expanding a digital content management system for the growing digital media enterprise*. Boston: Elsevier Focal Press.
2. Barrie, M. N. (2009). *Joomla! 1.5: a user's guide: building a successful Joomla! Powered website*. Upper Saddle River, NJ: Prentice Hall.
3. Bradford, L. E. (2008). *Content management systems in libraries: case studies*. Lanham, MD: Scarecrow Press.
4. Hal Stern, Brad Williams & David Damstra. (2010). *Professional*

WordPress: design and development. Indianapolis, IN: Wiley Pub., Inc.

LAN-06 : PROGRAMMING

BLOCK – I

Theoretical Aspects of Programming: Systems Analysis - Algorithm and Flow Charting-Programming and Programming Languages - Introduction

BLOCK – II

Programming in Specific Languages: Java – Introduction- Data Types, Operators and Arrays - Classes and Objects in Java -Packages and Interfaces

BLOCK – III

Programming in Specific Languages: C++-Overview of C++ - Classes and Objects - Operator Overloading - Inheritance Extending-Classes - Streams and Templates.

BLOCK – IV

Programming in Specific Languages: Visual Basic- Introduction - Variables and Functions - Building a Project and Customizing Forms -Controls - Functions and Procedures - Accessing Database – Creating Form with Data Controls - Object Linking and Embedding- Introduction to Windows Programming using Visual Basic 6.0-Advanced Features of Visual Basic 6.0 - Activex and Windows API.

REFERENCES:

1. Arnold, K., Gosling, J., Holmes, D., & Holmes, D. (2000). *The Java programming language* (Vol. 2). Reading: Addison-wesley.
2. Balagurusamy, E. (2008). *Object Oriented Programming With C++*. Delhi : Tata McGraw-Hill Education. [ISBN0070669074, 9780070669079]. .
3. Bradley, J. C., & Millspaugh, A. (2001). *Programming in Visual Basic 6.0 Update Edition with CD*. McGraw-Hill, Inc..
4. Dahl, O. J., Dijkstra, E. W., & Hoare, C. A. R. (Eds.). (1972). *Structured programming*. Academic Press Ltd..

LAN-07: PROJECT WORK
