

**POST GRADUATE DIPLOMA IN
LIBRARY AUTOMATION AND
NETWORKING (PGDLAN)**

Term-End Examination

00218

June, 2015

MLI-003 : INFORMATION SYSTEMS

Time : 2 hours

Maximum Marks : 50

(Weightage : 40%)

Note : *Answer all questions. All questions carry equal marks. Illustrate your answers with suitable examples and diagrams, wherever necessary. Write relevant question number before writing the answer.*

1.1 Discuss the basics of the general systems theory. Explain the concept of 'systems approach' and enumerate the elements of this approach.

OR

1.2 Discuss the different search strategies employed in bibliographical information retrieval environment and list the basic search tools used in such an environment.

2.1 What is a Decision Support System (DSS) ?
Illustrate the structure of DSS and explain how
a DSS differs from an MIS.

OR

2.2 Discuss the chronological evolution of Database
Management System (DBMS) and the goals of a
DBMS.

3.1 What is a Relational Database Management
System (RDBMS) ? List the characteristics of a
relation and explain the concept of normalisation
of relations.

OR

3.2 What is a transaction ? Explain serial and
concurrent execution of transactions and their
role in database maintenance.

4.1 Discuss the cost of operators SELECT,
PROJECT and JOIN in the structured query
formulation. Explain the difference between
physical and logical query optimisation.

OR

4.2 What is a Venn diagram ? Explain Boolean
operators using Venn diagrams.

5.0 Write short notes on any *two* of the following in about 250 words each :

- (a) Data Definition Language (DDL)
 - (b) Characteristics of Digital Libraries
 - (c) Object-oriented Data Model
 - (d) Internet Searching
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