

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

00615

**Term-End Examination  
December, 2010**

**MLI-003 : INFORMATION SYSTEMS**

*Time : 2 hours*

*Maximum Marks : 50*

*(Weightage : 40%)*

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

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**1.1** What do you understand by system life cycle ?  
Discuss various stages in system development

**OR**

**1.2** Discuss conceptual strategy and procedural components in system analysis. Explain the role of a system analyst in the development of information systems.

**2.1** What is Management Information System (MIS) ? Discuss elements of structure, design and development of an MIS.

**OR**

2.2 Explain the structure of an expert system with illustration. Discuss the methods of knowledge representation.

3.1 What are the criteria for a Database Management System (DBMS) to be called relational ? Explain the third Normal Form (3NF) with an example.

**OR**

3.2 Explain the architecture of a Database Management System (DBMS) and the purpose of views in database architecture. Discuss the components of a DBMS.

4.1 Discuss the general strategies for query optimization. Explain the role of JOIN operator in query formulation.

**OR**

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

5. Write short note on *any two* of the following (in about 250 words each)

- (a) Object-oriented data model
- (b) Characteristics of digital libraries
- (c) Inference engine
- (d) Structured Query Language (SQL)

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