

NOVEMBER/DECEMBER 2018

**MCS14 — DATABASE MANAGEMENT  
SYSTEMS**

Time : Three hours

Maximum : 75 marks

**SECTION A — (5 × 6 = 30 marks)**

Answer ALL questions.

1. (a) Write a short note on Relational Calculus.

Or

- (b) What is DML? Explain its types.

2. (a) What is Database Schema? Explain.

Or

- (b) Give an account on Aggregate Functions in SQL.

3. (a) Explain about closure of a set of functional dependencies.

Or

- (b) Write about Boyce - Codd Normal Form.

4. (a) Explain about the concept of File Organization.

Or

- (b) Discuss on the levels of RAID.

5. (a) Write a short note on Data Fragmentations.

Or

- (b) List and explain the form of data transparency.

**SECTION B — (3 × 15 = 45 marks)**

Answer any THREE questions.

6. Elucidate the Architecture of Database Systems with neat diagram.
7. Explain in detail the basic structure of an SQL expression.
8. Describe about Multi-valued Dependencies.
9. Explain the techniques to optimize the Disk-Block Access.
10. Discuss in detail the type Inheritance in SQL with examples.