ABV- Indian Institute of Information Technology & Management, Gwalior

Database Systems (IT205)

Minor Examination (Session 2024–25)

Maximum Time: 1.5 Hours   **Max Marks: 20**

Note: Attempt all questions. Marks are indicated against each question.

1. (a) Define Database Management System. Discuss its advantages over traditional file systems. (b) Explain the concept of Relational Data Model. (5 Marks)

2. Consider the relation: **Employee**(EID, Name, Dept, Salary)

   Write SQL queries for: (i) Find employees working in "Finance" department. (ii) Retrieve the highest salary employee. (iii) List names of employees earning more than 50,000. (5 Marks)

3. (a) What is Database Normalization? Explain 1NF, 2NF and 3NF with suitable examples. (b) Briefly discuss the role of keys (Primary, Foreign, Candidate). (5 Marks)

4. Write short notes on: (i) Indexing in Databases (ii) Transaction States (iii) Concurrency Control techniques (5 Marks)