ABV- Indian Institute of Information Technology & Management, Gwalior

Database Systems (IT205)

Minor Examination (Session 2023–24)

Maximum Time: 1.5 Hours   **Max Marks: 25**

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

1. Differentiate between Database, DBMS, and RDBMS with examples.   (4 Marks)

2. Explain Relational Algebra operators with suitable examples.   (4 Marks)

3. Consider the following schema: **Employee**(EmpID, Name, Dept, Salary) **Department**(Dept, Location)

   Write SQL queries for: (i) List employees working in "Database Dept". (ii) Find average salary of employees per department. (iii) Display names of employees whose salary > 60,000.   (7 Marks)

4. (a) Define Functional Dependency with an example. (b) Explain 1NF, 2NF, and 3NF briefly.   (5 Marks)

5. Write short notes on: (i) Indexing in Databases (ii) Concurrency Control   (5 Marks)