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May-2026

B.Sc. II SEMESTER

Introduction to Database System (OCSC-201A)

Time : 3 Hours]

[Maximum Marks : 75

Instructions :

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*
2. *Answer any **four** questions from Part-B in detail.*
3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART-A

1. (a) Define database. (1.5)
- (b) What is data independence? (1.5)
- (c) Define cardinality ratio. (1.5)
- (d) What is multivalued attribute? (1.5)
- (e) What is strong entity? (1.5)
- (f) Define attribute in relational model. (1.5)
- (g) Define table. (1.5)
- (h) What is query? (1.5)

- (i) What is WHERE clause? (1.5)
- (j) Define schema. (1.5)

PART-B

2. (a) Discuss three schema architecture in detail. (10)
- (b) What are advantages of file system over DBMS? (5)
3. (a) Explain ER model concept with diagram. (10)
- (b) Explain generalization and specialization. (5)
4. What is normalization? Explain 1NF, 2NF and 3NF with example. (15)
5. Write SQL queries for selecting, inserting, updating deleting and modify data with example of each. (15)
6. (a) Explain referential integrity constraints. (7)
- (b) Explain joins in SQL. (8)
7. Write short notes on the following: (15)
- (a) Relational Data Model.
- (b) Database Users.
- (c) Keys in ER model.