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BCA (Sem. - 4th)
DATABASE MANAGEMENT SYSTEM
SUBJECT CODE : BC-402
Paper ID : [B0216]

[Note: Please fill subject code and paper ID on OMR]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

1) Section - A is **Compulsory**.

2) Attempt any **Four** questions from Section - B.

Section - A

(10 × 2 = 20)

Q1)

a) Define Database system.

b) What is an attribute and tuple? Explain with an example.

c) Define Data independence.

d) What is ER diagram? Explain with an example.

e) What is SQL? Explain.

f) What is join? Explain its types.

g) What is meant by log based recovery?

h) What are integrity constraints? Explain.

i) What are weak entities? How are they different from strong entities.

j) Who is DBA? Explain his role in database management.

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Section - B

(4 × 10 = 40)

Q2) What is DBMS? Explain three level architecture with diagram.

Q3) What are data models? Compare and contrast hierarchical, network and relational data models.

Q4) What is relational algebra? How it is different from relational calculus?

Q5) What is normalization? What are its objectives? Explain various normal forms?

Q6) What are various threats to data security? Explain how you will protect them.

Q7) What is distributed database? Explain its architecture.

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