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BCA (Sem. – 4th)
DATA BASE MANAGEMENT SYSTEM
SUBJECT CODE : BC – 402
Paper ID : [B0216]

Time : 03 Hours

Maximum Marks : 60

Instruction to Candidates:

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Four** questions from Section - B.

Section - A**Q1)****(10 × 2 = 20)**

- a) What is DBMS? What are its advantages and disadvantages?
- b) What is degree and cardinality of a relation?
- c) Define data independence.
- d) What is composite attribute? Explain.
- e) What is SQL? Explain.
- f) What is concurrency control? Explain.
- g) What is log based recovery?
- h) What is integrity constraints? Explain.
- i) What is weak entity? How it is different from strong entity?
- j) What is conceptual level of database system? Explain.

Section – B**(4 × 10 = 40)****Q2)** What is DBA? Explain various responsibilities of DBA.**Q3)** Write note on the following :

- (a) Data models.
- (b) Data independence.

Q4) What is ER diagram? Discuss various symbols used in ER diagram. Draw and explain the ER diagram for library management system.**Q5)** What is normalization? What are its advantages? Discuss how normalization solves various anomalies in the database.**Q6)** What are various threats to data security? Explain how data is protected from various threats.**Q7)** What is distributed database? What are its advantages and disadvantages? Explain architecture of distributed database.