

Roll No. :

Total No. of Questions : 11]

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BC-197

B.C.A. (Part-I) Examination, 2022

DATABASE MANAGEMENT

BCA-102

Time : 3 Hours]

[Maximum Marks : 70

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit 50 words). Each question carries 2 marks.

Section-B

(Marks : 4 × 5 = 20)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit 200 words). Each question carries 4 marks.

Section-C

(Marks : 10 × 3 = 30)

Note :- Answer any *three* questions out of five (Answer limit 500 words). Each question carries 10 marks.

Section-A

2×10=20

Note :- Answer all *ten* questions (Answer limit 50 words). Each question carries 2 marks.

1. (i) Define Database.
- (ii) Write the name of any *two* data models.
- (iii) What is Super Key ?

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- (iv) What is Foreign Key ?
- (v) Write an example of select query.
- (vi) Write an example of insert query.
- (vii) What do you mean by 1NF ?
- (viii) What is Serializability ?
- (ix) Define Deadlock.
- (x) What do you mean by Starvation ?

Section–B

4×5=20

Note :- Attempt all *five* questions. Answer should not exceed **200** words in each question.

2. Describe advantages of database.

Or

Describe schemas and instances.

3. Describe referential integrity.

Or

Describe different types of Join Operations.

4. Describe the various types of Loops.

Or

Describe Triggers.

5. Describe functional dependencies.

Or

Describe serial and non-serial schedules.

6. Describe two-phase locking techniques.

Or

Describe basic timestamp ordering algorithm.

Section-C

10×3=30

Note :- Answer any *three* questions out of five. Answer should not exceed **500** words in each question.

7. Define E-R Model. Draw an E-R diagram of library management system.
8. Explain relational algebra with suitable examples.
9. Write short notes on the following :
 - (i) If and case statements
 - (ii) Functions
10. Explain the following :
 - (i) Desirable properties of transaction
 - (ii) Conflict serializable schedules
11. Write short notes on the following :
 - (i) Deadlock prevention protocols
 - (ii) Concept of data warehousing