

B.C.A./B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2019**Fourth Semester**

Core Course – DATABASE MANAGEMENT SYSTEM

(Common for B.C.A. and B.Sc. Computer Applications (Triple Main))

[2013 to 2016 Admissions]

Time : Three Hours

Maximum Marks : 80

Part A*Answer all questions in one sentence.**Each question carries 1 mark.*

1. Define an entity and attribute.
2. What is a tuple?
3. Define primary key.
4. What do you mean by weak entity set?
5. What is meant by data integrity?
6. Define DBMS.
7. What do you mean by concurrency control?
8. Write an example for BETWEEN operator.
9. What do you mean by an instance of a database?
10. What are Locks?

(10 × 1 = 10)

Part B*Answer any eight questions in one or two sentences.**Each question carries 2 marks.*

11. Write the states of a transaction.
12. Write notes on database audits.
13. What do you mean by foreign key? Give an example.
14. What is the difference between physical and logical independence?
15. What are the mapping techniques available?
16. Define entity sets and relationship sets.

17. What is a view? How will you create a view?
18. Write any *three* DBMS languages.
19. What do you mean by Indexing?
20. What is normalization? Why is it needed?
21. What do you mean by two phase locking?
22. What is the difference between inner and outer join?

(8 × 2 = 16)

Part C

Answer any **six** questions in 50 words.

Each question carries 4 marks.

23. Compare 3NF and BCNF.
24. Write notes on granting and revoking privileges.
25. Explain the desirable properties of a transaction.
26. What are the characteristics of DBMS?
27. Explain briefly the relational algebra operations.
28. Briefly explain the different types of database users and what are the functions of DBA?
29. With the help of examples, explain the DDL commands in SQL.
30. Explain tuple relation calculus.
31. Draw an ER diagram and explain the symbols used.

(6 × 4 = 24)

Part D

Answer any **two** questions in 100 words.

Each question carries 15 marks.

32. Explain the architecture of DBMS. What are the advantages of DBMS?
33. Explain the detail the indexing structures for files.
34. (a) Explain the DML commands in SQL.
(b) Write the aggregate functions.
35. (a) Briefly explain domain relational calculus.
(b) Write notes on Database Security.

(2 × 15 = 30)