



SM – 629

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II Semester B.C.A. Examination, May/June 2018
(Y2K8 Scheme) (Repeaters)

COMPUTER SCIENCE

BCA – 205 : Database Management Systems



Time : 3 Hours

Max. Marks : 70

Instruction : Answer *all* Sections.

SECTION – A

Answer **any ten** questions. **Each** carries **one** mark.

(10×1=10)

1. Define database. Give an example.
2. Write any two applications of DBMS.
3. Define schema.
4. Define instance.
5. What is multivalued attribute ? Give example.
6. Define entity. Give an example.
7. Define track and sector.
8. Define functional dependency.
9. List DDL commands.
10. Define composite key.
11. What do you mean by generalisation and specialisation ?
12. What is concurrency control ?

SECTION – B

Answer **any five** questions. **Each** question carries **three** marks.

(5×3=15)

13. Explain applications of DBMS.
14. What is data independence ? Explain briefly two types of data independence.
15. Explain buffering of blocks.
16. Explain briefly insertion, updation and deletion anomalies in database.
17. Explain constraints in relational data model.

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18. Explain aggregate functions in SQL.
19. Define exception. Explain any two types.
20. Write a note on serializability of schedules.

SECTION – C

Answer **any five** questions. **Each** carries **seven** marks. **(5×7=35)**

21. Explain three level DBMS architecture with neat diagram.
22. Explain different types of relationships in ER-datamodel.
23. What is hashing ? Explain internal and external hashing.
24. What is normalization ? Explain briefly various types of normal forms with examples.
25. What is join operation ? Explain different types of join operations with syntax in relational model.
26. Write a SQL query for the following :
 - a) To create table of hospital database with minimum 4 fields
 - b) To insert two records
 - c) Display all records.
27. Explain different types of cursors in detail.
28. Explain how locking techniques are used for concurrency control.

SECTION – D

Answer **any one** question. **Each** question carries **ten** marks. **(1×10=10)**

29.
 - a) Explain advantages of DBMS.
 - b) Explain different people behind DBMS.
 30. Construct and explain ER-diagram for bank database by taking necessary entities and attributes.
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