US – 650

II Semester B.C.A. Examination, May 2017
(Y2K8 Scheme) (Repeaters)
COMPUTER SCIENCE
BCA – 205 : Database Management Systems

Time : 3 Hours Max. Marks : 70

SECTION – A

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

1. Define data.
2. Give any two examples of database.
3. Define schema.
4. What is data model ?
5. What is ER-model ?
6. Define an entity.
7. How are storage devices classified ?
8. Define primary key.
9. Define a tuple.
10. Mention the purpose of DROP command.
11. Define PL/SQL.
12. Define transaction.

SECTION – B

Answer **any five** questions. **Each** question carries **three** marks. **(5×3=15)**

13. What are the functions of DBMS ?
14. Differentiate between centralized and distributed DBMS.
15. Write any three responsibilities of DBA.
16. Explain CREATE command with an example.
17. Define foreign key. Why is the concept used for ?

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18. Explain unary relational operation selection (σ) with an example.
19. Discuss the primary goals of normalization.
20. Define terms :
    a) Track b) Sector c) Cylinder

SECTION – C

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

21. Write a short note on users of DBMS.
22. Explain PL/SQL architecture.
23. Explain different types of attributes.
24. Define EQUIJOIN operation. Explain with an example.
25. Define normal forms. Explain 1 NF, 2 NF and 3 NF with an example.
26. Define DML. Explain INSERT and UPDATE statements with an example.
27. Explain three-tier client-server architecture of DBMS.
28. Explain ACID properties of transaction.

SECTION – D

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

29. Draw an ER-diagram for COLLEGE database by taking necessary entities and attributes.
30. A LIBRARY database has a table with the following attributes : LIBRARY (BookId : Number, Title : text, Author : text, Publisher : text, Price : Number, Year : Number)
    a) Create the table LIBRARY
    b) Insert three tuples
    c) Delete/remove a specific tuple
    d) Display all tuples/records.
