1B4M18162 (Pages : 2) Reg. No:...........................

Name: ....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Fourth Semester B.Sc Degree Examination, March 2018

BCS4B06 – Fundamentals of Database Management Systems & RDBMS

(2016 Admission onwards)

Max. Time: 3 hours   Max. Marks: 80

Part A
Answer *all* questions.
Each question carries *One* mark

1. SET concept is used in _____ model.

2. EER stands for _____

3. A set of possible data values is called _____

4. A table joined with itself is called _____

5. _____ is a type of constraint between two sets of attributes from the database.

6. Write the name of the tool that allows us to eliminate redundancy from the database

7. _____ transaction property ensures that once transaction changes are done, they cannot be undone or lost, even in the event of a system failure.

8. _____ phase of 2PL protocol for concurrency control, a transaction can release existing locks, but no new locks can be obtained.

9. _____ statement retrieves data from one or more database tables, and assigns the selected values to variables or collections.

10. In PL/SQL, _____ triggers execute once for each row in a transaction.

(10x1=10 Marks)

Part B
Answer *all* questions.
Each question carries *Two* marks

11. What is data Integrity?

12. What is the difference between TRUNCATE and DROP statements?

13. Define BCNF.

14. What you mean by cascading rollback?

15. Define PL/SQL functions with syntax.

(5x2=10 Marks)

Part C
Answer any *Five* questions.
Each question carries *Four* marks

16. What you mean by data redundancy and data inconsistency? Give example.

17. Discuss the different types of database users in brief.

18. What are keys? Discuss the various types of keys.

19. Define Normalization. List out the advantages of fully normalized table.

20. What are the data types in SQL? Explain with examples.

21. Explain the desirable properties of a decomposition.

22. Explain why a database is called self-describing.

23. Briefly explain the control structures in PL/SQL.

(5x4=20 Marks)

Part D
Answer any *Five* questions.
Each question carries *Eight* marks

24. Define data model. Explain any three data models in DBMS.

25. Explain database system structure with the help of a diagram.

26. Explain the different ways of joining multiple tables together with suitable example.

27. List and explain various DML and DDL commands in SQL.

28. Define functional dependency. Explain 1NF, 2NF and 3NF.

29. Define the term transaction. Explain ACID properties.

30. Explain the use of stored procedures and functions with suitable examples.

31. Explain the lost update problem with the help of a suitable example.

(5x8=40 Marks)