

TB153140A

Reg. No:

Name:

B. Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2016
SEMESTER III – CORE COURSE (COMPUTER APPLICATIONS)
CAC3B07TB - DATABASE MANAGEMENT SYSTEMS

Time: Three Hours

Maximum Marks: 80

PART A

Short Answer Questions

I. Answer all questions. Each question carries 1 mark

1. What is a database?
2. What is a degree of relation?
3. Define primary key
4. What is the command used for renaming the table.
5. What are spurious tuples?
6. Define transaction.

(6 x 1 =6)

PART B

Brief Answer Questions

II. Answer any seven questions. Each question carries 2 marks

7. What is data independence?
8. What is a weak entity type? Give example.
9. What is entity integrity?
10. Why are tuples in a relation not ordered?
11. Explain order by clause.
12. Explain select statement.
13. What is functional dependency?
14. What is lossless join decomposition?
15. What is ACID property of a transaction?
16. What is write-ahead logging?

(7x 2 =14)

PART C

Descriptive/Short Answer Questions

III. Answer any five questions. Each question carries 6 marks

17. State the advantages of using the DBMS approach.
18. Explain referential integrity constraint with an example.
19. Explain SQL join operator.
20. Explain DDL commands in detail.
21. Explain substring pattern matching with suitable examples.
22. Discuss insertion, deletion, and modification anomalies. Why are they considered bad? Illustrate with examples.
23. Discuss the different types of failures. What is meant by catastrophic failure?
24. Why concurrency control is needed?

(5x 6 =30)

PART D
Long Essay

IV. Answer any two questions. Each question carries 15 marks

25. What are the operators in relational algebra?
26. Explain nested sub query in detail.
27. Define Normalization. Discuss first and second normal form with examples.
28. Discuss the problems of deadlock and starvation, and the different approaches to dealing with these problems.

(2x 15 =30)