



**K23U 3540**

**Reg. No. : .....**

**Name : .....**

**III Semester B.C.A. Degree (CBCSS – OBE – Regular/Supplementary/  
Improvement) Examination, November 2023  
(2019 to 2022 Admissions)**

**GENERAL AWARENESS COURSE  
3A13BCA : Database Management System**

**Time : 3 Hours**

**Max. Marks : 40**

**PART – A  
(Short Answer)**

**Answer all questions.**

**(6×1=6)**

1. What is the Relational Model ?
2. Consider the table given : CUSTOMER (CustomerID, CustomerName, Age)  
Write the query to Update the column NAME and set the value to 'Nitin' in the rows where the Age is 22.
3. Define Conceptual Level.
4. What is SQL ?
5. Write the SQL statement to find the details of the student(s) who have scored grade A in 3A13BCA for the following relations.  
STUDENT(id, name, age) and SCORE(id, sub\_code, grade)
6. What is the need of a Transaction Manager ?

**PART – B  
(Short Essay)**

**Answer any 6 questions.**

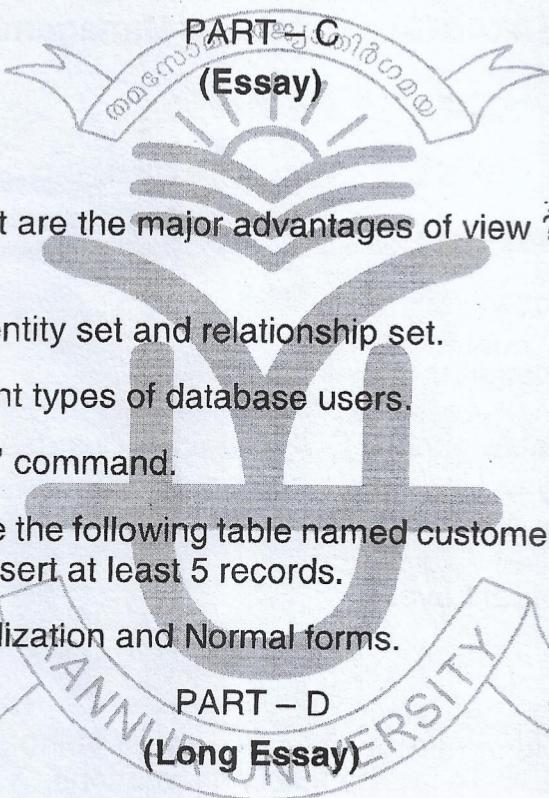
**(6×2=12)**

7. Briefly explain DCL.
8. How can we identify a relation that has functional dependency ? What are the advantages ?

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9. What is tuple relational calculus ?
10. Elucidate Generalization.
11. What is a relational database ?
12. What are the various transaction states ?
13. What are the two database design objectives ?
14. Define ER model.



PART - C

(Essay)

Answer **any 4** questions.

(4×3=12)

15. What is a view ? What are the major advantages of view ? Explain with an example.
16. Distinguish between entity set and relationship set.
17. Give a note on different types of database users.
18. Describe 'create table' command.
19. Write a query to create the following table named customer (custid, custname, area and phone), to insert at least 5 records.
20. Write notes on Normalization and Normal forms.

PART - D

(Long Essay)

Answer **any 2** questions.

(2×5=10)

21. Explain the following in the context of relational algebra :
    - i) Set- intersection operation.
    - ii) Natural Join Operation.
    - iii) Outer Join Operation.
  22. Explain the mechanism provided by SQL for nesting subqueries.
  23. What are the role and duties of Database Administrator (DBA) ?
  24. Define Database Languages DDL and DML with suitable examples.
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