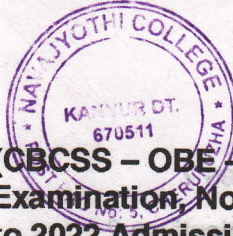




K23U 3540

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.



K22U 3584

Reg. No. :

Name :

**Third Semester B.C.A. Degree (CBCSS – OBE – Regular/Supplementary/
Improvement) Examination, November 2022
(2019 Admission Onwards)
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 are the different types of users in DBMS ?
2. What is Relational Data Model ?
3. How do you delete an existing table using SQL query ?
4. What is a candidate key ?
5. What is the use of SQL between clause ?
6. What is meant by weak entity set ?

PART – B (Short Essay)

Answer any 6 questions.

(6×2=12)

7. Describe the advantages of using DBMS.
8. What is the function of MySQL CHECK constraint ?
9. Differentiate between Union and Intersection operations.
10. What are the types of triggers in MySQL ?
11. Explain Cartesian product in Relational Algebra.

P.T.O.

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12. Briefly describe 'where' clause in MySQL.
13. What are different types of integrity constraints in DBMS ?
14. Define trigger which invoked during every insert operation.

PART – C (Essay)

Answer **any 4** questions.

(4×3=12)

15. Describe various Datatypes available in SQL.
16. Explain the various types of attributes present on ER model with examples.
17. What is a relational model ? Explain with an example.
18. Explain the types of Relational Calculus. Define the basic operations of relational algebra with an example each.
19. What are different mapping constraints defined while designing an ER diagram ?
20. Define a view. Explain how views are different from tables.

PART – D (Long Essay)

Answer **any 2** questions.

(2×5=10)

21. Define Join. Explain its types with examples.
 22. Illustrate ER Model. Explain ER design issues and various symbols used to draw an ER diagram.
 23. Illustrate DML commands with syntax and example.
 24. Explain in brief ACID properties in Transaction Management.
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K20U 1935

Reg. No. :

Name :

**III Semester B.C.A. Degree CBCSS (OBE) – Regular
Examination, November 2020
(2019 Admission Only)
GENERAL AWARENESS COURSE
3A13 BCA : Database Management System**

Time : 3 Hours

Max. Marks : 40

**PART – A
(Short Answer)**

One word to maximum one sentence. Answer all questions. (6×1=6)

1. What do you mean by domain of an attribute ?
2. Write the general syntax of Drop command.
3. What is Logical Data Independence ?
4. What is Tuple ?
5. Define schema of a database.
6. Why is relationship between entities important ?

**PART – B
(Short Essay)**

Answer any 6 questions : (6×2=12)

7. Draw a diagram to show the structure of a database.
8. Write a notes on views.
9. Explain the term Data Abstraction.
10. What do you mean by Relational calculus ?

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11. Give the importance of BCNF.
12. List any four advantages of DBMS.
13. Write a note on Foreign Key.
14. What do you mean by Data dictionary ?

PART – C
(Essay)

Answer **any 4** questions :

(4×3=12)

15. Explain basic steps involved in processing a query.
16. Explain the following terms :
 - i) Network Model
 - ii) Hierarchical Model.
17. What is join ? Explain different types of joins.
18. Explain the roles of data base administrator and the details of aggregate function queries.
19. Distinguish between DDL and DML.
20. What are the features of Database language ?

PART – D
(Long Essay)

Answer **any 2** questions :

(2×5=10)

21. Using diagrams and examples, explain E-R modeling with the help of student

Answer **any 2** questions :

(2×5=10)

21. Using diagrams and examples, explain E-R modeling with the help of student database.
22. Explain the overall system structure of database management system.
23. Explain normalization. How is it different from functional dependencies ?
24. Explain all types of data models.



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Reg. No. :

Name :

**III Semester B.C.A. Degree CBCSS (OBE) Reg./Sup./Imp.
Examination, November 2021
(2019 – 2020 Admission)
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 are the various kinds of interactions catered by DBMS ?
2. What is a relation ?
3. What is an entity ?
4. Who proposed the relational model ?
5. Define database instance.
6. Define integrity constraints.

PART – B

(Short Essay)

Answer **any 6** questions.

(6×2=12)

7. List the pitfalls in Relational Database Design.
8. What is query optimization ?
9. Distinguish conceptual view and end user view.
10. Write the general syntax of delete command.
11. Discuss the role of DBA.
12. Why does SQL allow duplicate tuples in a table ?
13. What do you mean by INF ?
14. Write a note on Mapping Cardinality.

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PART – C

(Essay)

Answer **any 4** questions.

(4×3=12)

15. What is normalization ? What is its role in database design ?
16. What is a view in SQL ? Describe the procedure for renaming a column of a view .
17. What are the basic concepts of E-R model ?
18. Write short note on anomalies in a database.
19. Explain the use of ORDER BY clause in SQL.
20. Write short notes on authorisation mechanisms available in SQL.

PART – D

(Long Essay)

Answer **any 2** questions.

(2×5=10)

21. Draw and Explain the overall system structure of DBMS.
22. Draw an ER-diagram for a library database system. Identify the appropriate entities, attributes and relationships.
23. Explain the concept of lossless join decomposition with an example.
24. Discuss in detail the operators SELECT, PROJECT, UNION with suitable examples.