

(FOR THE CANDIDATES ADMITTED

SUBJET CODE

21UCT308

DURING THE ACADEMIC YEAR 2021-22 ONLY)

REG.NO.

**N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI**

**END-OF-SEMESTER EXAMINATIONS : DECEMBER – 2022**

**B.Sc. – COMPUTER TECHNOLOGY**

**MAXIMUM MARKS: 70**

**III SEMESTER**

**TIME : 3 HOURS**

**PART – III**

**DATABASE MANAGEMENT SYSTEM**

**SECTION – A**

**(10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**(K1)**

**MULTIPLE CHOICE QUESTIONS.**

1. Which of the following symbol represents entity sets in an ER diagram
  - a. Divided Rectangle
  - b. Diamonds
  - c. Lines
  - d. Undivided rectangles
2. What is TRUE about Primary Key?
  - a. An entity can only be uniquely identified by using the first key
  - b. From these lists, the most appropriate key becomes a primary key
  - c. Primary keys are selected for each entity according to its requirements and developers
  - d. All the above
3. Which of the operation is not specifies in triggers?
  - a. Alter
  - b. Update
  - c. Insert
  - d. Delete
4. A BCNF is .....
  - a. loss less join and dependency preserving
  - b. loss less join but not dependency preserving
  - c. not loss less join but dependency preserving
  - d. None of these
5. Which of the following helps in implementing inter-operation parallelism?
  - a. Interdependent parallelism
  - b. Intra-query parallelism
  - c. Inter-query parallelism
  - d. Pipelined parallelism

**(CONTD.....2)**

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.**

**(K2)**

6. Define DBMS .
7. What is meant by Relational Model ?
8. What are Nested Queries?
9. What is Normalization?
10. Discuss structured data type.

**SECTION – B**

**(5 X 4 = 20 MARKS)**

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Compare file systems and RDBMS  
(OR)  
b) Describe the features of the ER model
12. a) What is relational algebra? Discuss its basic operations  
(OR)  
b) What are the views in relational algebra? Explain.
13. a) Compare SQL and PL/SQL  
(OR)  
b) Show SQL query to find names of employees start with 'A'
14. a) Explain 2NF.  
(OR)  
b) What is 3NF ? Explain. .
15. a) Differentiate parallel and distributed databases  
(OR)  
b) Describe the features of distributed database

**SECTION - C**

**(4 X 10 = 40 MARKS)**

**ANSWER ANY FOUR OUT OF SIX QUESTIONS.**

**(K4/K5)**

**(16<sup>th</sup> QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS)**

16. Discuss the Structure of a DBMS.
17. Summarize the advantages of RDBMS.
18. Explain the functions of Relational Calculus.
19. Discuss ACID Properties.
20. Describe the need of Access Control.
21. Distinguish between Encapsulation and inheritance.