

Q.P. Code – 31622

Sixth Semester B.A. Degree Examination, September 2020

(CBCS Scheme)

Computer Science

DATABASE MANAGEMENT SYSTEM

Time : 3 Hours]

[Max. Marks : 90

Instructions to Candidates : Answer all Sections.

SECTION – A

I. Answer any **TEN** questions : **(10 × 1 = 10)**

1. What is data?
2. What is a role of DBA?
3. Mention different types of Data processing.
4. What is Data redundancy?
5. What is Metadata?
6. What is an Entity?
7. What is relationship?
8. Define tuple.
9. What is Query?
10. What is Key constraint?
11. Write any two basic SQL datatype.
12. Mention two example of DML.

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SECTION – B

II. Answer any **FIVE** questions :

(5 × 3 = 15)

13. Explain any three functions of DBMS.
14. What is data Independence? Explain different types.
15. Explain Relational model.
16. Explain any three operations of Relational Algebra.
17. Explain 2NF with an example.
18. Briefly explain functional dependencies.
19. Write and explain the syntax for ALTER command with an example.

SECTION – C

III. Answer any **SIX** questions :

(6 × 5 = 30)

20. Describe the characteristics of database approach.
21. What are the advantages of DBMS?
22. Explain :
 - (a) Hierarchical model
 - (b) Network model
 - (c) Relational model
23. Briefly explain BCNF Normal Form.
24. Explain different types of key constraint in Relational Model.
25. Explain different types of SQL languages.
26. Briefly explain Relational calculus.
27. Explain the factors (or) guidelines of database design.

SECTION – D

IV. Answer any **FIVE** questions :

(5 × 7 = 35)

28. (a) Explain different categories of End-users.
(b) Explain any three responsibilities of DBA. **(4 + 3)**
29. (a) Explain DBMS Architecture.
(b) What is Normalization? Mention different types. **(5 + 2)**
30. (a) Draw an ER-Diagram for student database.
(b) What is Entity set? Mention types of Entity sets. **(5 + 2)**
31. What is Relationship? Explain different types of Relationship between Entity set.
32. Explain different types of attributes.
33. Explain RAID Technology.
34. The Emp Salary database of an organization has a table with the following attributes :
- Emp Sal (Empcode Number, Ename varchar2, dob date, dept varchar2, Salary number (10, 2))
- (a) Create the above table.
(b) Enter 5 tuples into the table.
(c) Display the number of employee working in each dept.
(d) Find sum of the salaries of all employees.
(e) Find highest and lowest salary of all employees.
(f) Find sum and average salaries of employees of particular department.
(g) Increase the salary of those employees in 'CS' department Rs.2000.

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