

Faculty of Science
B.Sc (Computer Science) III-Year, CBCS –IV Semester
Regular Examinations -June/July, 2022
PAPER: Data Base Management Systems

Time: 3 Hours

Max Marks: 80

Section-A

- I. Answer any *eight* of the following questions (8x4=32 Marks)
1. What is Database Approach?
 2. Write Different Data Models.
 3. What are Views? How to create a View?
 4. Define SQL Data Types.
 5. What are Sub queries? Write an example.
 6. How to Grant Privileges to other users in SQL?
 7. What are Fan Traps? Explain.
 8. Explain Aggregation in ER model.
 9. Write a short note on Functional Dependencies.
 10. Write a short note on RAID.
 11. What is Concurrency control? Specify its need.
 12. What are Recovery facilities?

Section-B

- II. Answer the following questions (4x12=48 Marks)
13. (a) Explain the Advantages and Disadvantages of DBMS over File System.
(OR)
(b) Explain the Basic Relational Algebra Operations.
 14. (a) Explain the Aggregate and Grouping Functions of SQL.
(OR)
(b) Describe various Integrity Enhancement Constraints in SQL.
 15. (a) Explain ER model in detail. And also draw ER diagram to represent Strong and Weak Entity sets.
(OR)
(b) What is Normalization? Write the purpose of it. Explain the Data Redundancy and update Anomalies.
 16. (a) Define a Transaction. Explain the properties of a Transaction.
(OR)
(b) Describe the Time Stamping methods in detail.

Faculty of Science

B.Sc (Computer Science) II-Year, CBCS –IV Semester Backlog Examinations, Jan–2023

PAPER: Data Base Management Systems

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Section-A

I. Answer any *eight* of the following questions (8x4=32 Marks)

1. Write the components of a DBMS.
2. Explain the Division Operation of Relational Algebra.
3. Write various Database Languages.
4. Write various Aggregate functions.
5. What are Stored Procedures?
6. Write an SQL Query to create and Remove a Table.
7. What are Chasm Traps? Explain.
8. Explain Specialization/Generalization in ER model.
9. What are Keys? Write different types of Keys.
10. Define Transaction. Write the properties of a Transaction.
11. Write a short note on Deadlock in Transactions.
12. Specify the Recovery Techniques.

Section-B

II. Answer the following questions (4x12=48 Marks)

13. (a) Define DBMS. Write the Advantages, Disadvantages and functions of DBMS.
(OR)
(b) What is Relational Model? Specify its terminology. Explain different Integrity Constraints on it.
14. (a) Define View. How to create a View? Explain View updatability. And write the advantages of Views.
(OR)
(b) What are Triggers? Describe the Sections of a Trigger with an example Program.
15. (a) What is ER model? How to enforce Structural Constraints on ER diagram.
(OR)
(b) Define Functional Dependencies. Write the Anomalies in it. Explain different types of dependencies.
16. (a) What is Concurrency Control? Explain the need for Concurrency Control. Describe Serializability.
(OR)
(b) Describe in detail about Database Security and Threats.

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Section-AI. Answer any *eight* of the following questions

(8x4=32 Marks)

1. Meta data
2. DBMS
3. Network model
4. Create command
5. Index
6. PL/SQL
7. Strong Entity and Weak Entity
8. Attribute
9. E-R model
10. Transaction
11. Concurrency
12. Database Recovery

Section-B

II. Answer the following questions

(4x12=48 Marks)

- 13.(a) Explain advantages and disadvantages of DBMS
(OR)
(b) What are the components of DBMS
- 14.(a) What are SQL data types
(OR)
(b) Explain DDL commands in detail
- 15.(a) Explain Normalization process with examples
(OR)
(b) Explain Unary, Binary and Ternary relationships
- 16.(a) What is Concurrency control? what are three main problems of concurrency
(OR)
(b) What are Computer based controls
