

TILAK MAHARASHTRA VIDYAPEETH, PUNE
BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)/
BACHELOR OF COMPUTER APPLICATIONS (CYBER SECURITY)
EXAMINATION : DECEMBER -2024
SEMESTER – III
Sub: Database Management System (DBMS)
(BCA –341-18/BCA-341-20/BCA-CS-341-20/BCA23-302/BCAC23-302)

Date : 26/12/2024

Total Marks : 60

Time: 2.00 pm to 4.30 pm

Instructions:

1. All questions are compulsory unless and otherwise stated.
 2. Bold figures to the right of every question are the maximum marks for that question.
 3. Candidates are advised to attempt questions in order.
 4. Answers written illegibly are likely to be marked zero.
 5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
 6. Draw neat and labelled diagrams wherever necessary.
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Q.1. Fill in the blanks.

(5)

1. Entity Integrity Rule is concerned with _____ key values
 - a) Primary
 - b) Secondary
 - c) Candidate
 - d) Foreign
2. Supplier-Part is an example of _____ relationship
 - a) 1:1
 - b) m:n
 - c) 1:m
 - d) m:1
3. RDBMS stands for _____ database management system
 - a) Relational
 - b) Relation
 - c) Rational
 - d) Reserved
4. The term ETL in data warehousing stands for Extract , Transform and _____
 - a) Lead
 - b) Load
 - c) Let Go
 - d) List
5. In Locking protocol there are in all _____ types of locks
 - a) 7
 - b) 2
 - c) 3
 - d) 4

Q.2. State True/False

(5)

1. Strong Entity is also called as an Identifying Owner
2. Many to many relationship can be expressed directly in hierarchical model
3. Data transfer time is the time needed to move data from secondary storage device to processor memory
4. Data mining is used to analyse large database to find useful patterns
5. In timestamp ordering, transaction with smaller timestamp value is younger transaction

Q.3. Answer the following. (Solve any 5) (10)

1. What is vector?
2. What is single user and Multiuser system?
3. What is Anomaly? List different types
4. What is serializability?
5. What is volatile storage?
6. What is deadlock?

Q. 4. Answer the following in detail. (Solve any 6) (30)

1. Explain Codd's rule no 3- Systematic treatment of null values
2. Write about Responsibilities of database manager or storage manager
3. Write a note on Users of DBMS
4. Explain different DCL commands
5. Which are different states of transaction
6. Explain checkpoint mechanism
7. Write about two phase protocol

Q. 5. Answer the following in detail. (Solve any 1) (10)

1. Explain the concept of Entity Relationship Model in detail
 2. Write detailed note on Roll of DBA
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