

M. Tech. Computer Science & Engineering (CBCS Pattern) Sem-II
PCSS22 - Advanced Database

P. Pages : 1

Time : Three Hours



GUG/W/22/10993

Max. Marks : 70

- Notes :
1. Attempt **any five** questions.
 2. All questions carry equal marks.
 3. Due credit will be given to neatness and adequate dimensions.
 4. Assume suitable data wherever necessary.

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| 1. | Write short notes on:
i) Dynamic SQL
ii) Embedded SQL | 14 |
| 2. | a) What is distributed database? Discuss fragmentation transparency, replication transparency and location transparency in distributed database. | 7 |
| | b) Explain how a digital signature is used to prove authentication along with its advantage. | 7 |
| 3. | Discuss the following terms:
i) Audit trail
ii) TP monitor
iii) Database Tuning
iv) JDBC – ODBC | 14 |
| 4. | a) What do you mean by Crash Recovery in database? Which techniques can be used to do Crash Recovery? | 7 |
| | b) Discuss “Global Serializability” in multidatabase environment. | 7 |
| 5. | a) Explain the steps in Query processing in DBMS. | 7 |
| | b) Discuss about “OLAP and Data Mining”. | 7 |
| 6. | a) What do you mean by distributed Deadlock in DBMS? Elaborate on deadlock handling mechanisms. | 10 |
| | b) Write a note on object databases. | 4 |
| 7. | a) Explain heuristic optimization in Query Processing. | 7 |
| | b) Discuss web enabled database system. | 7 |
| 8. | Discuss following issues related to database design.
i) Integrity
ii) Consistency
iii) Database Tuning
iv) Authorization | 14 |
