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Roll No

CS-502-CBGS

B.Tech., V Semester

Examination, December 2020

Choice Based Grading System (CBGS)

Database Management Systems

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

iii) All parts of each questions to be are attempted at one place.

iv) In case of any doubt or dispute the English version question should be treated as final.

1. a) How is precedence graph made to check serializability? 7
b) Explain Fragmentation and its types in detail. 7
2. a) What do you mean by deadlock handling? How can we resolve deadlock? 7

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- b) Differentiate physical level and logical level of data abstraction. 7
3. a) What is two phase locking (2PL)? Describe with the help of an example. 7
- b) What is Log? How is it maintained? 7
4. a) Discuss the role of database administrator. 7
- b) Consider a relation R with five attribute A, B, C, D, E having following dependencies $A \rightarrow B, BC \rightarrow E$ and $ED \rightarrow A$ 7
- i) List all keys for R
- ii) In which normal form table is
- | | |
|---------------|------------------|
| R | A, B, C, D, E |
| \rightarrow | $ED \rightarrow$ |
5. a) Explain specialization and generalization feature of ER diagram with example. 7

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- b) What is lossless decomposition in database? How it is useful in database? 7
6. a) List out the operations that can be performed on files. 7
- &
- b) 7
7. a) Explain the following commands with syntax. 7
- i) Select
 - ii) Update
 - iii) Delete
- b) Differentiate DML, DDL and DCL in detail. 7
8. Write short note on any three of the following : 14
- i) Concurrency control
 - ii) Multivalued dependency
 - iii) Hashing technique
 - iv) Join dependency
 - v) Various keys in DBMS