

B.E. II (Information Technology) June 2021
Class Test – III (ITR4C4: Database Management Systems)

Duration – 70 min.

MM - 20

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Note: All questions are compulsory. Attempt all part of a question in one place.

Q.1 A schedule S: R2(A); R3(B); W2(A); R1(A); W3(B); R2(B); W1(A); W2(B); R2(C); W2(C); R1(C); W1(C); W3(B)

Is the above schedule conflict serializable? If yes, the given schedule is equivalent to which of the following serial schedule?

- (A) T1->T2->T3
- (B) It is not conflict serializable
- (C) T2->T1->T3
- (D) T3->T2->T1

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Q.2 Differentiate between static hashing and dynamic hashing with example.

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Q.3 Find out the concurrency protocols used in the following example. Also justify your answer:

(i) Lock-S(A)
R(A)
Lock-X(B)
R(A)
R(B)
B=A+B
Unlock(A)
W(B)
Unlock (B)

(ii) Lock-S(A)
R(A)
Lock-X(B)
Unlock(A)
R(B)
W(B)
Commit
Unlock(B)

(iii) Lock-S(A)
R(A)
Unlock(A)
Lock-X(B)
R(B)
W(B)
Unlock(B)
Commit

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Q.4 Explain the various states of transaction with their SQL command.

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