School of Computing Science and Engineering
B.Tech CSE
ETE - Aug 2023

Time : 3 Hours   **Marks : 50**

Sem III - B080301T - Database Management System
Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary

1.	How composite attribute and entity are represented in DBMS?	K2 CO1 (2)
2.	Given a relation R(A, B, C, D) and Functional Dependency set FD = { AB → CD, B → C }, determine whether the given R is in 2NF?	K1 CO2 (2)
3.	Given a transaction T1: R1(A), W1(A), R2(A), W2(A), R1(B), W1(B), R2(B), W2(B). State whether it is conflict serializable or not?	K4 CO3 (2)
4.	What is shared and exclusive locks in DBMS?	K3 CO4 (2)
5.	What is the use of B tree in DBMS?	K4 CO5 (2)
6.	Given functional dependies are: AB -> CD, AF -> F, DE -> F, C-> G, F -> E, E -> A, Find closure of AE, CF and BG	K3 CO1 (5)
7.	Define Normalization. What is the use of Normalization?	K4 CO2 (5)
8.	Discuss secondary index in DBMS.	K6 CO5 (6)
9.	Given, R4(A), R2(A), R3(A), W1(B), W2(A), R3(B), W2(A). State whether it is conflict serializable or not.	K4 CO3 (8)
10.	Given, schedule are: Lock_s(A) R(A) Lock_s(B) unlock(A) R(B) W(B) commit unlock(B) State whether it is in 2-PL or not?	K5 CO4 (8)
11.	Discuss B+ tree in DBMS?	K5 CO5 (8)