

J C BOSE UNIVERSITY OF SCIENCE AND TECHNOLOGY, YMCA

BTech. 5th Semester (CE 51/52) (Sessional II)

Database Management System (FCC- CS-501)

Time: 1.5 hrs.

M. Marks: 30

Q. No. 1 Explain different deadlock prevention mechanism. [CO5] 3

Q. No. 2 Test the Serializability for the following schedule using Conflict Serializability Test. [CO5] 5

T1	T2	T3
	R(X)	
R(Y)		
R(Z)		
	R(Y)	
	W(Y)	
		W(Z)
R(U)		
W(U)		

Q. No. 3 Consider the following table with Functional Dependencies [CO2] 5
{Emp_Id, Emp_Name, Address, Design, Dept_ID, Dept_Name, Course, Duration}
Emp_ID-> Emp_Name, Address, Design, Dept_ID, Course
Dept_ID-> Dept_Name
Course-> Duration

- Find the Primary Key of the relation.
- Normalize the table upto 3 NF

Q. No. 4 Differentiate between IDS and Firewall. [CO6] 2

Q. No. 5 What is the importance of Recovery in DBMS. Explain the concept of log based recovery using suitable example. 5

Q. No. 6 Differentiate between OLAP and OLTP [CO6] 5

Q. No. 7 What are the main goal of distributed databases? Explain the types of data fragmentations in distributed database along with their difference. 5