Sanjay Ghodawat University, Kolhapur

2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: SY B.Tech	**School of Commerce and Management**	**Department: CSE**
Course Code: CST206	**Course Title: Database Management System**	**Semester :IV**
Day and Date: Tuesday, 22/6/2021	**End Semester Examination**	**Time:2 Hrs. Max Marks:50**

Instructions: 1) All Questions are compulsory.

		Marks	**Bloom's Level**	**CO**
Q.1	**Answer/Solve the following (any Two)**–			
a)	Explain in detail about Database System Architecture	8	L4	CO1
b)	Construct an E-R diagram for a car insurance company whose customersown one or more cars each. Each car has associated with it zero to anynumber of recorded accidents. Each insurance policy covers one or morecars, and has one or more premium payments associated with it. Eachpayment is for a particular period of time, and has an associated due date,and the date when the payment was received.	8	L5	C01
c)	Consider the following relational schema Staff(staff_no,fname,lname,position,gender,dob,salary,br_no) Branch(branch_no,street,city,postcode) Propertyforrent(propertyno,street,city,postcode,type,rooms,rent,ownerno,staffno,branchno) Perform SQL i)List numbers and names of staff who manage properties, and properties they manage. ii) List staff who manage properties, including city in which branch is located and properties they manage. iii) List names of all clients who have viewed a property along with any comment supplied. iv) Find staff whose salary is larger than salary of every member of staff at branch B003.	8	L5	CO2

Q.2	**Answer/Solve the following (any two)** –				
	a)	Explain Normalization and its objectives. What are the steps involved in the Normalization and how do functional dependencies affect normalization?	8	L2	CO3
	b)	Write an algorithm or rules for basic timestamp ordering protocol.	8	L4	CO4
	c)	Explain concept of starvation, deadlock, cascading rollback with examples.	8	L4	CO4
Q.3	**Answer/Solve the following (any two)** –				
	a)	Comparison ordered indexing and hashing? Explain index definition in SQL	9	L5	CO5
	b)	Explain data structures used for dynamic hashing	9	L2	CO5
	c)	Illustrate the purpose of the checkpoint mechanism. How often should check points be performed?	9	L4	CO6

*****