

CONTINUOUS INTERNAL EVALUATION- 1

Dept: CSE	Sem / Div: V CS 'B'	Sub: Database Management Systems	S Code: 17CS53
Date: 20/10/2020	Time: 9:30 AM - 11:00 AM	Max Marks: 40	Elective: N
Note: Answer any 2 full questions, choosing one full question from each part.			

Q N	Questions	Marks	RBT	COs
PART A				
1 a	Discuss various components of a DBMS with a neat diagram.	8	L2	CO1
b	Draw a ER diagram for the COMPANY database.	8	L3	CO1
	Differentiate between the following			
c i.	Strong and Weak entity	4	L2	CO1
ii.	Recursive relationship and Identifying relationship			
OR				
2 a	Explain the main characteristics of the database approach versus the file processing approach.	8	L2	CO1
b	Explain the three schema architecture with neat diagram. Why do we need mappings among schema levels? How do different schema definition languages support this architecture?	8	L3	CO1
c	What are the responsibilities of the DBA and database designers?	4	L2	CO1
PART B				
3 a	Explain briefly domain, key, integrity and referential integrity constraints with example.	8	L3	CO2
b	Describe the steps of an algorithm for ER – to – relation mapping.	8	L2	CO2
	Consider the following relational schema Emp(eid, ename, age, sal) Works_for(eid, pid, #hrs) Proj(pid, pname)			
c	Write the queries in relational algebra for the following i. Retrieve Employee ID and Name of the employees who work for all the projects. ii. Retrieve Name and Age of employees whose salary > 10000.	4	L3	CO2
OR				
4 a	Describe the characteristics of relation with suitable example for each.	8	L2	CO2
b	What are the basic operations that can change the states of relations in the database? Explain how the basic operation deals with constraint violations.	8	L2	CO2
c	Explain the select and project operations in relational algebra with example.	4	L2	CO2


