

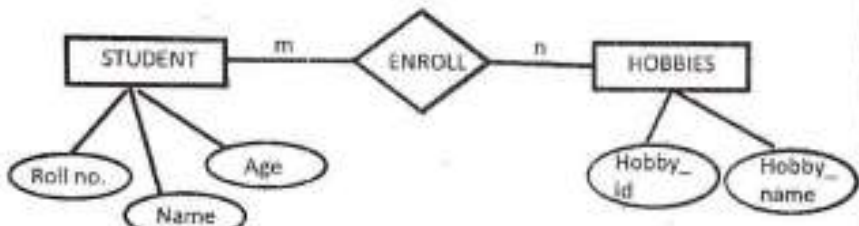
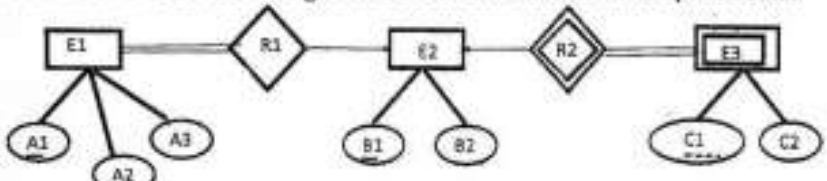
MID-SEMESTER EXAMINATION, October- 2021

Course Code-CACSC05/CDCSC05/CMCSC05/ COCSC05/TTTC05/INITC05
Course Title-Database Management System

Time- 1 Hour 30 Mins

Max. Marks- 15

Note: - Attempt all questions. Missing data/ information if any, maybe suitably assumed & mentioned in the answer.

Q. No.	Question	Marks	CO
1a	Define candidate key and primary key. List the difference between them.	1M	CO2
1b	Consider a relation R (A,B,C,D,E). If {A} and {BC} are the candidate keys of R, find the number of superkeys and list them.	2 M	CO2
2	<p>Consider the following ER model:</p>  <p>Write relational algebra expression for the following queries.</p>		
2a	<p>(i) Find the students who have music, painting and football as their hobbies.</p> <p>(ii) Find the student names who do not have cricket and yoga as their hobby.</p>	2 M	CO2
2b	List the hobbies in which atleast 3 students have enrolled.	1M	CO2
3a	Define levels of abstraction.	1M	CO1
3b	What is the difference between procedural and non procedural DML. Give example of each.	2 M	CO1
4a	What is the difference between schema and instance. Give example of each.	1.5M	CO1
4b	What is meant by data independence. Support your answer with an example.	1.5 M	CO1
5	<p>Consider the ER model given below and answer the questions:</p> 		
5a	What is the minimum number of relations for the above mentioned ER model.	1M	CO2
5b	What is the relational schema for the above mentioned ER model	2M	CO2