



# CUMMINS COLLEGE OF ENGINEERING FOR WOMEN

(An Autonomous Institute affiliated to Savitribai Phule Pune  
University)

## Third Year Electronics & Telecommunication DATABASE MANAGEMENT SYSTEMS (SWAYAM ONLINE) (PEEC3201E)

Duration : 01:00 Hour

Max Marks : 25

Instructions :

1. All questions are compulsory.
2. Use of scientific calculator is allowed.
3. Draw diagrams wherever necessary.

Unit-1

Q No 1 a)

(5)

Discuss a Join operation and elaborate its usage in brief. For the relations given below, find the right natural outer join scenario.

Relation *course*

course_id	title	dept_name	credits
BIO-301	Genetics	Biology	4
CS-190	Game Design	Comp Science	4
CS-135	Robotics	Comp Science	3

Relation *prereq*

course_id	prereq_id
BIO-301	BIO-101
CS-190	CS-101
CS-347	CS-101

Unit-2

Q No 2 a)

(5)

What is the significance of **Views** in a database?

From the relations given below,

(i) Create a view faculty from instructors; without their salary

(ii) Find all such instructors in the ECE department

ID	name	dept_name	salary
1000	Aman	ECE	65000
2000	Pankaj	Finance	50000
1010	Prakash	ECE	70000
3000	Kelly	Comp Science	65000
3020	Siddharth	Comp Science	70000

*Instructors*

Unit-3

Q No 3 a)

(5)

Discuss all SQL data types in brief.

Unit-4

Q No 4 a)

(5)

Illustrate the following with appropriate E-R diagram symbols:

i) Entity Set.

ii) Primary Key

iii) Relationship Set.

iv) Disjoint generalization

v) Total participation of entity set in relationship

Unit-5

Q No 5 a)

(5)

Compare the 3 layer Web application architecture with the 2 layer web application architecture with neat diagrams for both.

What is the disadvantage of the former as compared to the latter architecture?