D Y PATIL
DEEMED TO BE
UNIVERSITY
- NAVI MUMBAI -

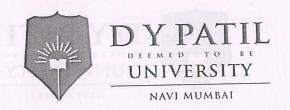**Semester-III**   **B. Tech Artificial Intelligence and Data Science**   38122301

ADC301   **Database Management System**

Date:14-05-2024   **Time: 02.00pm – 04.00pm**   **MaxMarks:60**

Q.1	Solve any Four	20 Marks	CO	BT
a)	Give difference between strong and weak entity set.	5	CO1	BT4
b)	Explain stored procedures with an example.	5	CO5	BT3
c)	State the DML commands used in SQL. Give its syntax along with an example.	5	CO4	BT3
d)	Illustrate steps to convert strong entity, many to many (M: M) relationship and one to many (1: M) relationship into relational schema with example.	5	CO2	BT5
e)	State and explain the different functional dependencies in DBMS. Give Example of each.	5	CO3	BT2
f)	List significant differences between ER Model and EER Model.	5	CO1	BT4

Q.2	Solve any Four	20 Marks	CO	BT
a)	Give purpose of view in SQL along with its syntax. Provide suitable example to justify the purpose.	5	CO4	BT3
b)	Differentiate between 4NF and 5NF in Relational Database Design.	5	CO3	BT5
c)	Is there a need for normalization? Justify with suitable example.	5	CO3	BT4
d)	Give need of nested query along with a suitable example.	5	CO4	BT3
e)	Explain database triggers with an example.	5	CO5	BT2
f)	Illustrate aggregation. Give suitable example for the same.	5	CO1	BT2

Q.3	Solve any Two	20 Marks	CO	BT
a)	Explain the following SQL clauses along with their respective syntax and A suitable example: IN, LIKE, ORDER BY, HAVING and COUNT.	10	CO4	BT5

b)	Draw ER diagram for banking enterprise. Transform it into Relational model . Assume necessary data.	10	CO2 BT6
c)	Define transaction. Explain states of transaction with example.	10	CO6 BT4