


<b>Name:</b> <b>Enrolment No:</b>			
<b>UNIVERSITY OF PETROLEUM AND ENERGY STUDIES</b> <b>End Semester Examination, Dec 2023</b>			
<b>Course: Mainframe DBMS</b> <b>Program: B.Tech. (CSE, H+ NH) with All Spl.</b> <b>Course Code: CSMT4007P</b>		<b>Semester: VII</b> <b>Time: 03 hrs.</b> <b>Max. Marks: 100</b>	
<b>SECTION A</b> <b>(5Qx4M=20Marks)</b>			
S. No.		Marks	CO
Q. 1	List four significant differences between a file-processing system and a DBMS.	4M	CO1
Q. 2	Write the SQL queries for the following. Take any table to show the concept. <i>Show the output after applying each query.</i> (i) Display all the rows of the table. (ii) Display particular rows and particular columns of the table (iii) Display Particular columns and all rows of the table. (iv) Display Particular rows and all columns of the table.	4M	CO1
Q. 3	Row-Level and Column-level access control	4M	CO4
Q. 4	Illustrate the use of grant and revoke with suitable example.	4M	CO4
Q. 5	Explain the importance of DFSMS in DB2 at Mainframe.	4M	CO4
<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
Q.6	Justify, can trigger helps in recovery with a suitable example.	10M	CO2
Q.7	Explain the different phases of the preparation process for an application program and draw a diagram for explaining the same.	10M	CO3
Q.8	Compare Database administration and Storage administration.	10M	CO4
Q.9	i. Illustrate the use of LOAD and UNLOAD utility with suitable Example. (OR) ii. Illustrate the use of REORG utility with a suitable example.	10M	CO5

**SECTION-C**  
**(2Qx20M=40 Marks)**

Q.10	<p><b>i.</b> Construct an E-R diagram for a car-insurance company whose customers own one or more cars each. Each car has associated with it zero to any number of recorded accidents.</p> <p><b>ii.</b> If, no attribute has the capability to become a primary key in a relation, how you will ensure entity integrity constraint? Explain with suitable example and write SQL query for ensuring it.</p> <p style="text-align: center;"><b>(OR)</b></p> <p><b>i.</b> Compare Following (with suitable example):</p> <p style="margin-left: 20px;">a. Primary key and Unique key</p> <p style="margin-left: 20px;">b. Multivalued attribute and Composite attribute</p> <p><b>ii.</b> Describe three–schema architecture and explain the role of physical data independence and logical data independence.</p>	<b>10M</b>	<b>CO1</b>
		<b>10M</b>	
		<b>8M</b>	
		<b>12M</b>	
Q. 11	<p><b>i.</b> Explain the role of Optimizer in respect of a query execution.</p> <p><b>ii.</b> Illustrate the use of views to control access.</p>	<b>10M</b>	<b>CO5</b>
		<b>10M</b>	