

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Introduction to SQL
Program: BCA IOT/ BFSI
Course Code: CSBC1005
Instructions: Answer all questions.

Semester: I
Time 03 hrs.
Max. Marks: 100

SECTION A

S. No.		Marks	CO
Q 1	List the various functions of DBMS with query and example.	4	CO1
Q 2	Differentiate DROP and TRUNCATE commands of SQL with suitable example.	4	CO2
Q 3	List the various SET operators used in SQL with its functionality.	4	CO3
Q 4	What is LOB? Give the types of LOB object with its purposes?	4	CO2
Q 5	State the purpose of Synonym and give the syntax to create a synonym and use it.	4	CO4

SECTION B

Q 6	Define Normalization and its purpose in database design. Discuss 1NF, 2NF and 3NF with an relevant example.	10	CO1
Q 7	Explain the three level architecture of DBMS with the diagram.	10	CO1
Q 8	Discuss on the purpose of GROUP BY and HAVING clause in SQL with suitable example.	10	CO3

Q 9	<p>Consider the table Product (pid, pname, price, category, manufacturer) and give the query to generate the below given reports</p> <ol style="list-style-type: none"> Product name who have maximum price Product name who have minimum price The average price of all products The number of products in the company Specify the various category in the company <p style="text-align: center;">OR</p> <p>Illustrate the various types of Joins in SLQ with suitable examples.</p>	10	CO3
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SECTION-C

Q 10	<ol style="list-style-type: none"> What is DDL. Specify the syntax of any 4 DDL queries with suitable examples.(10 Marks) Develop a relation Employee as below given specification and constraints. (6 Marks) <ul style="list-style-type: none"> Make sure ID range is between 1000 and 4000 Create the FK constraint as on deleting any department the emp table id should change to Null <table border="1" data-bbox="306 961 1183 1262" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Column Name</th> <th>ID</th> <th>LAST_NAME</th> <th>FIRST_NAME</th> <th>DEPT_ID</th> </tr> </thead> <tbody> <tr> <td>Key Type</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Nulls/Unique</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>FK Table</td> <td></td> <td></td> <td></td> <td>DEPT</td> </tr> <tr> <td>FK Column</td> <td></td> <td></td> <td></td> <td>ID</td> </tr> <tr> <td>Data type</td> <td>NUMBER</td> <td>VARCHAR2</td> <td>VARCHAR2</td> <td>NUMBER</td> </tr> <tr> <td>Length</td> <td>7</td> <td>25</td> <td>25</td> <td>7</td> </tr> </tbody> </table> Write suitable query to perform following actions.(4 Marks) <ul style="list-style-type: none"> Modify the EMP table to allow for longer employee last names of size as 50 Confirm your modification. 	Column Name	ID	LAST_NAME	FIRST_NAME	DEPT_ID	Key Type					Nulls/Unique					FK Table				DEPT	FK Column				ID	Data type	NUMBER	VARCHAR2	VARCHAR2	NUMBER	Length	7	25	25	7	20	CO2
Column Name	ID	LAST_NAME	FIRST_NAME	DEPT_ID																																		
Key Type																																						
Nulls/Unique																																						
FK Table				DEPT																																		
FK Column				ID																																		
Data type	NUMBER	VARCHAR2	VARCHAR2	NUMBER																																		
Length	7	25	25	7																																		

Q 11	<ol style="list-style-type: none"> Identify the object used to speed-up the retrieval process of data in oracle using pointers? Discuss on its types and how its created. (10 Marks) Define and list the advantages of using views in oracle? Discuss view creation and using it with a sample query. (10 Marks) <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> State the purpose of Sequence and give the syntax to create a sequence and use it. (10 Marks) Discuss the types of database security and the relevant SQL queries to manage them.(10 Marks) 	20	CO4
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