

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, December 2020

Course: Database Management Systems with Accounting Software
Program: BBA(AIS)
Course code: FINC 3003

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

SECTION A

- 1. Each Question will carry 5 Marks**
- 2. Instruction: Select/Write the correct answer(s) /**

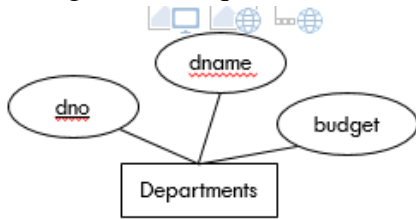
S. No.	Question	CO
Q1	<p>Select correct option:</p> <p>I. In an E-R diagram attributes are represented by (A) rectangle. (B) square. (C) ellipse. (D) triangle.</p> <p>II. In case of entity integrity, the primary key may be (A) not Null (B) Null (C) both Null & not Null. (D) any value.</p> <p>III. In an E-R diagram an entity set is represent by a (A) rectangle. (B) ellipse. (C) diamond box. (D) circle.</p> <p>IV. Which SQL statement is used to delete data from a database? (A) DELETE (B) REMOVE (C) COLLAPSE</p>	CO1

	<p>V. Which SQL statement is used to insert new data in a database? (A) ADD NEW (B) INSERT NEW (C) INSERT INTO (D) ADD RECORD</p>																																									
<p>Q2</p>	<p>Assuming below CUSTOMERS table. Write following SQL queries:</p> <table border="1" data-bbox="207 489 703 722"> <thead> <tr> <th>ID</th> <th>NAME</th> <th>AGE</th> <th>ADDRESS</th> <th>SALARY</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Ramesh</td> <td>32</td> <td>Ahmedabad</td> <td>2000.00</td> </tr> <tr> <td>2</td> <td>Khilan</td> <td>25</td> <td>Delhi</td> <td>1500.00</td> </tr> <tr> <td>3</td> <td>kaushik</td> <td>23</td> <td>Kota</td> <td>2000.00</td> </tr> <tr> <td>4</td> <td>Chaitali</td> <td>25</td> <td>Mumbai</td> <td>6500.00</td> </tr> <tr> <td>5</td> <td>Hardik</td> <td>27</td> <td>Bhopal</td> <td>8500.00</td> </tr> <tr> <td>6</td> <td>Komal</td> <td>22</td> <td>MP</td> <td>4500.00</td> </tr> <tr> <td>7</td> <td>Muffy</td> <td>24</td> <td>Indore</td> <td>10000.00</td> </tr> </tbody> </table> <p>a) Fetch ID, Name and Salary fields from the CUSTOMERS table for a customer with name Hardik. b) Fetch ID, Name and Salary fields from the CUSTOMERS table where salary is greater than 2000 or age is less than 25 years</p>	ID	NAME	AGE	ADDRESS	SALARY	1	Ramesh	32	Ahmedabad	2000.00	2	Khilan	25	Delhi	1500.00	3	kaushik	23	Kota	2000.00	4	Chaitali	25	Mumbai	6500.00	5	Hardik	27	Bhopal	8500.00	6	Komal	22	MP	4500.00	7	Muffy	24	Indore	10000.00	<p>CO2</p>
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<p>Q3</p>	<p>Assuming CUSTOMERS table of question 2. Write following SQL queries: a) Update ADDRESS to Pune for a customer whose ID is 6 b) DELETE a customer, whose ID is 6</p>	<p>CO2</p>																																								
<p>Q4</p>	<p>Select correct option:</p> <p>I. How can you change "Hansen" into "Nilsen" in the "LastName" column in the Persons table?</p> <p>A. UPDATE Persons SET LastName='Hansen' INTO LastName='Nilsen' B. UPDATE Persons SET LastName='Nilsen' WHERE LastName='Hansen' C. MODIFY Persons SET LastName='Nilsen' WHERE LastName='Hansen' D. MODIFY Persons SET LastName='Hansen' INTO LastName='Nilsen'</p> <p>II. With SQL, how can you insert "Olsen" as the "LastName" in the "Persons" table?</p> <p>A. INSERT INTO Persons ('Olsen') INTO LastName B. INSERT ('Olsen') INTO Persons (LastName) C. INSERT INTO Persons (LastName) VALUES ('Olsen')</p>	<p>CO1</p>																																								
<p>Q5</p>	<p>Select correct option:</p> <p>I. With SQL, how can you return all the records from a table named "Persons" sorted descending by "FirstName"?</p> <p>A. SELECT * FROM Persons ORDER FirstName DESC B. SELECT * FROM Persons ORDER BY FirstName DESC C. SELECT * FROM Persons SORT 'FirstName' DESC D. SELECT * FROM Persons SORT BY 'FirstName' DESC</p>	<p>CO1</p>																																								

	<p>II. With SQL, how do you select all the records from a table named "Persons" where the "LastName" is alphabetically between (and including) "Hansen" and "Pettersen"?</p> <p>A. SELECT * FROM Persons WHERE LastName BETWEEN 'Hansen' AND 'Pettersen' B. SELECT LastName>'Hansen' AND LastName<'Pettersen' FROM Persons C. SELECT * FROM Persons WHERE LastName>'Hansen' AND LastName<'Pettersen'</p>	
Q6.	<p>Select correct option:</p> <p>I. With SQL, how do you select all the records from a table named "Persons" where the "FirstName" is "Peter" and the "LastName" is "Jackson"?</p> <p>A. SELECT * FROM Persons WHERE FirstName<>'Peter' AND LastName<>'Jackson' B. SELECT * FROM Persons WHERE FirstName='Peter' AND LastName='Jackson' C. SELECT FirstName='Peter', LastName='Jackson' FROM Persons</p> <p>II. With SQL, how do you select all the records from a table named "Persons" where the value of the column "FirstName" starts with an "a"?</p> <p>A. SELECT * FROM Persons WHERE FirstName LIKE '%a' B. SELECT * FROM Persons WHERE FirstName LIKE 'a%' C. SELECT * FROM Persons WHERE FirstName='a' D. SELECT * FROM Persons WHERE FirstName='%a%'</p>	CO1
<p>SECTION B</p> <p>1. Each question will carry 10 marks 2. Instruction: Write short / brief notes</p>		
Q7	<p>A) Write SQL to Create student record table with following attributes:</p> <ul style="list-style-type: none"> • Sid (no null and primary) • Sname (not null) • Sage (default 20) • Semail • Scity • Smob(not null) <p>B) Differentiate between update and alter SQL query.</p>	CO2
Q8.	Differentiate between arithmetic and relational operators used in SQL.	CO2
Q9.	Describe different types of attributes used in ER diagram with the help of examples.	CO2

Q10.

Identify the entity, attributes and primary key of the below given diagram and convert that E-R diagram into equivalent SQL query to create table.



CO2

Q11

Consider an **employee_tbl** table, which is having the following records:

```
SQL> SELECT * FROM employee_tbl;
```

id	name	work date	daily typing pages
1	John	2007-01-24	250
2	Ram	2007-05-27	220
3	Jack	2007-05-06	170
3	Jack	2007-04-06	100
4	Jill	2007-04-06	220
5	Zara	2007-06-06	300
5	Zara	2007-02-06	350

A) Write output for the following SQL:

- i) `SELECT COUNT(*) FROM employee_tbl WHERE name="Zara";`
- ii) `SELECT id, name, MAX(daily_typing_pages) FROM employee_tbl GROUP BY name;`
- iii) `SELECT MIN(daily_typing_pages) least, MAX(daily_typing_pages) max FROM employee_tbl;`
- iv) `SELECT SUM(daily_typing_pages) FROM employee_tbl;`

B) Write SQL to display following output:

- i) To count the number of records for Zara
- ii) To fetch maximum value of `daily_typing_pages`
- iii) Find all the records with maximum value for each name
- iv) Calculate average of all the `dialy_typing_pages`
- v) To calculate square root of all the `dialy_typing_pages`

CO2

Section C

1. Each Question carries 20 (10X2) Marks.

2. Instruction: Write long answer.

Q12

On the bases of given tables answer the following questions:

ENO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPT
7369	Sunita Sharma	CLERK	7902	1980-12-17	2800	NULL	20
7499	Ashok Singhal	SALESMAN	7698	1981-02-20	3600	300	30
7521	Rohit Rana	SALESMAN	7698	1981-02-22	5250	500	30
7566	Jyoti Lamba	MANAGER	7839	1981-04-02	4975	NULL	20
7654	Martin S.	SALESMAN	7698	1981-09-28	6250	1400	30
7698	Binod Goel	MANAGE	7839	1981-05-01	5850	NULL	30
7782	Cheten Gupta	MANAGER	7839	1981-06-09	2450	NULL	10
7788	Sudhir Rawat	ANALYST	7566	1987-04-19	5000	NULL	20
7839	Kavita Sharma	PRESIDENT	NULL	1981-11-17	5000	NULL	10
7844	Tushar Tiwari	SALESMAN	7698	1981-09-08	4500	0	30
7876	Anand Rathi	CLERK	7788	1987-05-23	6100	NULL	20
7900	Jagdeep Rana	CLERK	7698	1981-12-03	4950	NULL	30
7902	Sumit Vats	ANALYST	7566	1981-12-03	3500	3600	20
7934	Manoj Kaushik	CLERK	7782	1982-01-23	5300	NULL	10

Write the SQL query for the following:

- i. To list the employee name and his annual salary.
- ii. To list the unique jobs from the table.
- iii. To list the mgr which are in 7902, 7566, 7788.
- iv. To list Comm as 1000 which are NULL.
- v. To list all the columns in the ascending order of deptno and descending order of salary.
- vi. To display the employee name and job of employees hired between Feb 20, 1981 and May 1, 1981.
- vii. To list the name and salary of all the employees who earn more than 1200 and are in department 10 or 40.
- viii. To list all the employees who do not have manager.
- ix. To list name and salary of all employees who earn commissions.
- x. To list the names of all employees where the second letter of their name is an 'a'.

CO3