

Name:	 <b>UPES</b> UNIVERSITY WITH A PURPOSE
Enrolment No:	

**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**  
**End Semester Examination(Online) - July 2020**

<b>Course: Data Management</b> <b>Program: MBA(BA)</b> <b>Course code: DSBA 7004</b>	<b>Semester: II</b> <b>Time: 03 Hours</b> <b>Max. Marks: 100</b>
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**SECTION A**

**IMPORTANT INSTRUCTIONS**

1. The student must write his/her name and enrolment no. in the space designated above.
2. The questions have to be answered in this MS Word document.
3. After attempting the questions in this document, the student has to upload this MS Word document on Blackboard.

**Marks**      **CO**

**Q1. On the bases of given tables answer the following questions:**

Table : DEPT

DCODE	DEPARTMENT	CITY
D01	MEDIA	DELHI
D02	MARKETING	DELHI
D03	INFRASTRUCTURE	MUMBAI
D05	FINANCE	KOLKATA
D04	HUMAN RESOURCE	MUMBAI

Table : WORKER

WNO	NAME	DOJ	DOB	GENDER	DCODE
1001	George K	2013-09-02	1991-09-01	MALE	D01
1002	Ryma Sen	2012-12-11	1990-12-15	FEMALE	D03
1003	Mohitesh	2013-02-03	1987-09-04	MALE	D05
1007	Anil Jha	2014-01-17	1984-10-19	MALE	D04
1004	Manila Sahai	2012-12-09	1986-11-14	FEMALE	D01
1005	R SAHAY	2013-11-18	1987-03-31	MALE	D02
1006	Jaya Priya	2014-06-09	1985-06-23	FEMALE	D05

**8X2.5  
=20**

**CO2**

**A)Write output for the following SQL:**

- i) SELECT COUNT(\*), DCODE FROM WORKER GROUP BY DCODE HAVING COUNT(\*)>1;
- ii) SELECT DISTINCT DEPARTMENT FROM DEPT;

- iii) SELECT NAME, DEPARTMENT, CITY FROM WORKER  
W,DEPT D WHERE W.DCODE=D.DCODE AND WNO<1003;
- iv) SELECT MAX(DOJ), MIN(DOB) FROM WORKER;

**B) Write SQL to display following output:**

- (i) To display Wno, Name, Gender from the table WORKER in descending order of Wno.
- (ii) To display the Name of all the FEMALE workers from the table WORKER.
- (iii) To display the Wno and Name of those workers from the table WORKER who are born between '1987-01-01' and '1991-12-01'.
- (iv) To count and display MALE workers who have joined after '1986-01-01'.

Q2.

**Write SQL commands to create the table COLLEGE with following specifications:**

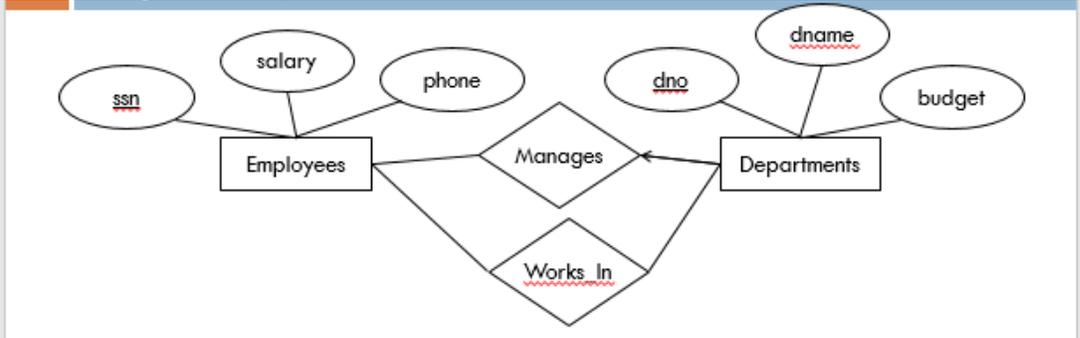
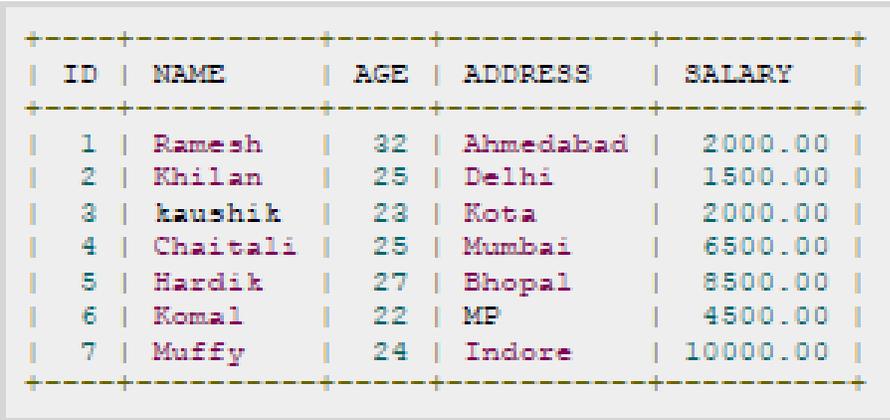
Field Name	Data Type	Constraints
Cno	Int(4)	Primary Key
Name	Varchar(20)	
Department	varchar(15)	
Dateofadm	date	
Fees	Double(7,2)	
Gender	Char(1)	

- a) Write SQL command to create Table “COLLEGE” with appropriate constraints.
- b) Write SQL query for the following statements:
  - i) To list the structure of the table COLLEGE?
  - ii) Write SQL commands to insert 3 records in COLLEGE table.
  - iii) Add one more column Age of type int(2) default 18 in the COLLEGE table.
  - iv) Write SQL command to insert default Age.
  - v) Modify the column Age as int (3).

5+

5X3=20

CO2

Q3.	<p>A company database needs to store information about employees (identified by ssn, with salary and phone as attributes), departments (identified by dno, with dname and budget as attributes), and children of employees (with name and age as attributes). Employees work in departments; each department is managed by an employee; a child must be identified uniquely by name when the parent (who is an employee; assume that only one parent works for the company) is known. We are not interested in information about a child once the parent leaves the company.</p> <ol style="list-style-type: none"> <li>1) Draw an ER diagram that captures this information.</li> <li>2) Write SQL statements to create the corresponding relations and capture as many of the constraints as possible. If you cannot capture some constraints, explain why.</li> </ol>	10  10	CO3
Q4.	<p>Explain the below ER diagram and write different tables structure need to implement this ER diagram in SQL.</p> 	20	CO3
Q5.	<p>Consider two tables (CUSTOMERS and ORDERS) to answer the below queries(Place screen shot if possible):</p> 	5X4=20	CO2

OID	DATE	ID	AMOUNT
102	2009-10-08 00:00:00	3	3000
100	2009-10-08 00:00:00	3	1500
101	2009-11-20 00:00:00	2	1560
103	2008-05-20 00:00:00	4	2060

a) SELECT ID, NAME, AMOUNT, DATE  
FROM CUSTOMERS  
INNER JOIN ORDERS  
ON CUSTOMERS.ID = ORDERS.CUSTOMER\_ID;

b) SELECT ID, NAME, AMOUNT, DATE  
FROM CUSTOMERS  
LEFT JOIN ORDERS  
ON CUSTOMERS.ID = ORDERS.CUSTOMER\_ID;

c) SELECT ID, NAME, AMOUNT, DATE  
FROM CUSTOMERS  
RIGHT JOIN ORDERS  
ON CUSTOMERS.ID = ORDERS.CUSTOMER\_ID;

d) SELECT ID, NAME, AMOUNT, DATE  
FROM CUSTOMERS  
FULL JOIN ORDERS  
ON CUSTOMERS.ID = ORDERS.CUSTOMER\_ID;

e) SELECT a.ID, b.NAME, a.SALARY  
FROM CUSTOMERS a, CUSTOMERS b  
WHERE a.SALARY < b.SALARY;

## ANSWERS