1 Create Table Name: Student and Exam

Primary Key		Foreign Ke	Exam			
Rollno	1	Student Branch	Rollno	S_code	Marks	P_code
Koimo	Name		1	CS11	50	CS
1	Jay	Computer Science	-			
2	Suhani	Electronic and Com	1	CS12	60	CS
3	Kriti	Electronic and Com	2	EC101	66	EC
,	KIII	Electronic and Com	2	EC102	70	EC
			3	EC101	45	EC.
			3	EC102	50	EC

Ans:

```
CREATE TABLE student
(
   Rollno int not null PRIMARY KEY,
   Name varchar(25),
   Branch varchar(25)
);
INSERT INTO student VALUES(1,'Jay','Computer Science');
INSERT INTO student VALUES(2,'Suhani','Electronic and com');
INSERT INTO student VALUES(3,'Kriti','Electorinic and com');
```

```
Branch
                                       ▼ Rollno
                                                      Name

    Ø Edit  
    ♣ Copy  
    Opelete

                                                   1 Jay
                                                                 Computer Science

    Ø Edit 
    ♣ Copy 
    Opelete

                                                   2 Suhani Electronic and com
                                                                 Electorinic and com

    Ø Edit  
    ♣ Copy  
    Opelete

                                                   3 Kriti
CREATE TABLE exam
  Rollno int NOT null,
  S_code varchar(30),
  Marks int,
  P_code varchar(30),
  Rollno int,
  FOREIGN KEY(Rollno) REFERENCES student(Rollno),
INSERT INTO exam VALUES(1,'CS11',50,'CS');
INSERT INTO exam VALUES(1,'CS12',60,'CS');
INSERT INTO exam VALUES(2,'EC101',66,'EC');
INSERT INTO exam VALUES(2,'EC102',70,'EC');
INSERT INTO exam VALUES(3,'EC101',45,'EC');
INSERT INTO exam VALUES(3,'EC102',50,'EC');
```

Rollno	S_code	Marks	P_code
1	CS11	50	CS
1	CS12	60	CS
2	EC101	66	EC
2	EC102	70	EC
3	EC101	45	EC
3	EC102	50	EC

2. Create table given below: Employee and IncentiveTable

Employee_i d	First_name	Last_name	Salary	Joining_dat	Department
1	John	Abraham	1000000	01-JAN-13 12.00.00 AM	Banking
2	Michael	Clarke	800000	01-JAN-13 12.00.00 AM	Insurance
3	Roy	Thomas	700000	01-FEB-13 12.00.00 AM	Banking
4	Tom	Jose	600000	01-FEB-13 12.00.00 AM	Insurance
5	Jerry	Pinto	650000	01-FEB-13 12.00.00 AM	Insurance
6	Philip	Mathew	750000	01-JAN-13 12.00.00 AM	Services
7	TestName1	123	650000	01-JAN-13 12.00.00 AM	Services
8	TestName2	Lname%	600000	01-FEB-13 12.00.00 AM	Insurance

Name: Employee

Table Name:

Incentive

Employee_ref_id	Incentive_date	Incentive_amount
1	01-FEB-13	5000
2	01-FEB-13	3000
3	01-FEB-13	4000
1	01-JAN-13	4500
2	01-JAN-13	3500

Ans:

```
CREATE TABLE Employee
  Employee id int NOT null PRIMARY KEY,
  First name varchar(25),
  Last name varchar(25),
  Salary int,
  Joining date varchar(30),
  Department varchar(30)
INSERT INTO employee VALUES (1, 'John', 'Abraham', 1000000, '01-JAN-03 12.00.00
AM'.'Banking'):
INSERT INTO employee VALUES (2, 'Michael', 'Clarke', 800000, '01-JAN-03 12.00.00
AM', 'Insurance');
INSERT INTO employee VALUES (3,'Roy','Thomas',700000,'01-FEB-03 12.00.00
AM', 'Banking');
INSERT INTO employee VALUES (4, 'Tom', 'Jose', 600000, '01-FEB-03 12.00.00 AM', 'Insurance');
INSERT INTO employee VALUES (5, 'Jerry', 'Pinto', 650000, '01-FEB-03 12.00.00
AM','Insurance');
INSERT INTO employee VALUES (6, 'Philip', 'Mathew', 750000, '01-JAN-03 12.00.00
AM', 'Services');
INSERT INTO employee VALUES (7, 'Testname1', '123', 650000, '01-JAN-03 12.00.00
AM', 'Services');
INSERT INTO employee VALUES (8, 'Testname2', 'Lname%', 600000, '01-FEB-03 12.00.00
AM', 'Insurance');
```



Employee_id	Incentive_date	Incentive_amount
1	01-FEB-2013	5000
2	01-FEB-2013	3000
3	01-FEB-2013	4000
1	01-JAN-2013	4500
2	01-JAN-2013	3500

3. Get First_Name from employee table using Tom name "Employee Name".

Ans:

SELECT First name FROM employee WHERE First name='Tom';



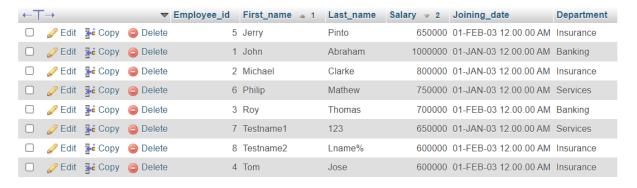
4. Get FIRST_NAME, Joining Date, and Salary from employee table. Ans:

SELECT First name, Joining date, Salary FROM employee;



5. Get all employee details from the employee table order by First Name Ascending and Salary descending?

Ans: SELECT * FROM Employee ORDER BY First name ,Salary DESC;



6. Get employee details from employee table whose first name contains 'J'.

Ans:

SELECT * FROM Employee WHERE First name LIKE 'J%';



7. Get department wise maximum salary from employee table order by salaryascending?

Ans:

SELECT Department, MAX(Salary) FROM employee GROUP BY Department;



9. Select first_name, incentive amount from employee and incentives table forthose employees who have incentives and incentive amount greater than 3000

Ans:

SELECT First Name, Incentive amount FROM employee

JOIN incentive ON employee.Employee_id=incentive.Employee_id WHERE incentive.Incentive_amount>3000;

First_Name	Incentive_amount
John	5000
Roy	4000
John	4500
Michael	3500

10. Create After Insert trigger on Employee table which insert records in viewtable.

```
Ans:
      CREATE TABLE viewtable
  Employee_id int,
  First name varchar(20),
  Last name varchar(20),
  Salary int,
  Joining date varchar(20),
  Department varchar(20),
  Date_Time timestamp,
  Action Performed text
);
DELIMITER $$
CREATE TRIGGER employee1 AFTER INSERT ON employee FOR EACH ROW
BEGIN
              INSERT INTO
viewtable(Employee_ID,First_name,Last_name,Salary,Joining_date,Department,
action_performed)
VALUES(new.Employee ID,new.First name,new.Last name,new.Salary,new.Joining date,
new.Department,'Record inserted');
INSERT INTO employee VALUES(9, 'James', 'Bond', 800000, '1-Jan-13 12.00.00 AM', 'Banking');
Employee_id First_name Last_name Salary Joining_date
                                                   Department Date_Time
                                                                           Action_Performed
```

800000 1-Jan-13 12.00.00 AM Banking

11. Create table given below: Salesperson and Customer

9 James

Bond

2024-09-06 19:11:16 Record inserted

TABLE-1

TABLE NAME- SALSEPERSON

(PK)SNo	SNAME	CITY	сомм
1001	Peel	London	.12
1002	Serres	San Jose	.13
1004	Motika	London	.11
1007	Rafkin	Barcelona	.15
1003	Axelrod	New York	.1

TABLE-2

TABLE NAME- CUSTOMER

(PK)CNM.	CNAME	CITY	RATING	(FK)SNo
201	Hoffman	London	100	1001
202	Giovanne	Roe	200	1003
203	Liu	San Jose	300	1002
204	Grass	Barcelona	100	1002
206 Clemens		London	300	1007
207	Pereira	Roe	100	1004

Ans:

CREATE TABLE Salesperson

PKSNo int PRIMARY KEY,

SNAME varchar(20), CITY varchar(20),

COMM varchar(20)

INSERT INTO salesperson VALUES(1001, 'Peel', 'London', '.12');

INSERT INTO salesperson VALUES(1002, 'Serres', 'San Jose', '.13');

INSERT INTO salesperson VALUES(1004, 'Motika', 'London', '.11');

INSERT INTO salesperson VALUES(1007, 'Rafkin', 'Barcelona', '.15');

INSER	INSERT INTO salesperson VALUES(1003, 'Axelrod', 'New York','.1');							
←∏	\rightarrow		∇	PKSNo	SNAME	CITY	COMM	
	<i></i> €dit	≩ Copy	Delete	1001	Peel	London	.12	
		≩ Copy	Delete	1002	Serres	San Jose	.13	
	<i> ⊘</i> Edit	≩ сору	Delete	1003	Axelrod	New York	.1	
		≩ Copy	Delete	1004	Motika	London	.11	
	<i> </i> Edit	≩ Copy	Delete	1007	Rafkin	Barcelona	.15	
CREAT (E TABLE cus	stomer						

```
PKCNM int,
CNAME varchar(20),
CITY varchar(20),
RATING int,
PKSNo int,
FOREIGN KEY(PKSNo) REFERENCES salesperson(PKSNo)
);
INSERT INTO customer VALUES(201, 'Hoffman', 'London', 100, 1001);
INSERT INTO customer VALUES(202, 'Giovanne', 'Roe', 200, 1003);
INSERT INTO customer VALUES(203, 'Liu', 'San Jose', 300, 1002);
INSERT INTO customer VALUES(204, 'Grass', 'Barcelona', 100, 1002);
INSERT INTO customer VALUES(206, 'Clemens', 'London', 300, 1007);
INSERT INTO customer VALUES(207, 'Pereira', 'Reo', 100, 1004);
```

PKCNM	CNAME	CITY	RATING	PKSNo
201	Hoffman	London	100	1001
202	Giovanne	Roe	200	1003
203	Liu	San Jose	300	1002
204	Grass	Barcelona	100	1002
206	Clemens	London	300	1007
207	Pereira	Reo	100	1004

13. All orders for more than \$1000.

Ans:

SELECT * FROM customer WHERE amount>1000;

14. Names and cities of all salespeople in London with commission above 0.12

Ans:

SELECT SNAME, CITY FROM salesperson WHERE CITY='London' AND COMM>0.12;

SNAME CITY

15. All salespeople either in Barcelona or in London

Ans:

SELECT * FROM salesperson WHERE CITY='Barcelona' OR CITY='London';

$\leftarrow \top$	−		∇	PKSNo	SNAME	CITY	COMM
		≩ • Сору	Delete	1001	Peel	London	.12
	<i></i> € Edit	≩ Copy	Delete	1004	Motika	London	.11
		Copy	Delete	1007	Rafkin	Barcelona	.15

16. All salespeople with commission between 0.10 and 0.12. (Boundary valuesshould be excluded).

Ans:

SELECT * FROM salesperson WHERE COMM BETWEEN 0.10 AND 0.12;

←Ţ	−		∇	PKSNo	SNAME	CITY	COMM
		≩- Сору	Delete	1001	Peel	London	.12
	<i></i> € Edit	≩ Copy	Delete	1003	Axelrod	New York	.1
		≩- Сору	Delete	1004	Motika	London	.11

17. All customers excluding those with rating <= 100 unless they are located in Rome.

Ans:

SELECT * FROM customer WHERE rating<=100 AND CITY='Reo';

PKCNM	CNAME	CITY	RATING	PKSNo
207	Pereira	Reo	100	1004

18. Write a SQL statement that displays all the information about all salespeople.

Ans:

SELECT * FROM salesperson;

$\leftarrow \top$	→		\triangledown	PKSNo	SNAME	CITY	COMM
		≩ Copy	Delete	1001	Peel	London	.12
	<i></i> € Edit	≩ Copy	Delete	1002	Serres	San Jose	.13
		≩ Сору	Delete	1003	Axelrod	New York	.1
	<i></i> € Edit	≩ Copy	Delete	1004	Motika	London	.11
	<i></i> €dit	≩ • Сору	Delete	1007	Rafkin	Barcelona	.15

19. From the following table, write a SQL query to find orders that are delivered by a salesperson with ID. 5001. Return ord_no, ord_date, purch_amt.

salesman_id name	city commission
+	
5001 James Hoog New York	0.15
5002 Nail Knite Paris	0.13
5005 Pit Alex London	0.11
5006 Mc Lyon Paris	0.14
5007 Paul Adam Rome	0.13
5003 Lauson Hen San Jose	0.12

ord_no	purch_amt	ord_date	customer_id	salesman_id
70001	150.5	2012-10-05	3005	5002
70009	270.65	2012-09-10	3001	5005
70002	65.26	2012-10-05	3002	5001
70004	110.5	2012-08-17	3009	5003
70007	948.5	2012-09-10	3005	5002
70005	2400.6	2012-07-27	3007	5001
70008	5760	2012-09-10	3002	5001
70010	1983.43	2012-10-10	3004	5006
70003	2480.4	2012-10-10	3009	5003
70012	250.45	2012-06-27	3008	5002
70011	75.29	2012-08-17	3003	5007
70013	3045.6	2012-04-25	3002	5001
Anc:				

Ans:

CREATE TABLE salesman
(
salesman_id int PRIMARY KEY,

```
name varchar(20),
city varchar(20),
commission varchar(20)
);
INSERT INTO salesman VALUES (5001, 'James Hoog', 'New York', '0.15');
INSERT INTO salesman VALUES (5002, 'Nail Knite', 'Paris', '0.13');
INSERT INTO salesman VALUES (5005, 'Pit Alex', 'London', '0.11');
INSERT INTO salesman VALUES (5006, 'Mc Lyon', 'Paris', '0.14');
INSERT INTO salesman VALUES (5007, 'Paul Adam', 'Rome', '0.13');
INSERT INTO salesman VALUES (5003, 'Lauson Hen', 'San Jose', '0.12');
```

```
▼ salesman id

                                                   name
                                                                 city
                                                                            commission

    Ø Edit 
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    ⑥ Delete

                                              5001 James Hoog New York 0.15
                                              5002 Nail Knite

    Ø Edit 
    ¾ Copy 
    ☐ Delete

                                                                 Paris
                                                                            0.13
                                              5003 Lauson Hen San Jose 0.12

    Ø Edit 
    ♣ Copy 
    Opelete

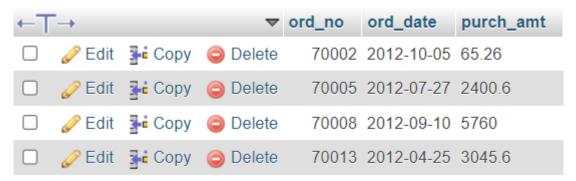
 Edit  Copy  Delete
                                              5005 Pit Alex
                                                                 London
                                                                           0.11

    Ø Edit 
    ♣ Copy 
    Opelete

                                              5006 Mc Lyon
                                                                 Paris
                                                                            0.14
 5007 Paul Adam
                                                                 Rome
                                                                           0.13
CREATE TABLE orders
  ord no int PRIMARY KEY,
       purch amt varchar(20),
       ord date date,
       customer id int,
       salesman id int.
       FOREIGN KEY(salesman id) REFERENCES salesman(salesman id)
);
INSERT INTO orders VALUES (70001, '150.5', '2012-10-05', '3005', '5002');
INSERT INTO orders VALUES (70009,'270.65','2012-09-10','3001','5005');
INSERT INTO orders VALUES (70002, '65.26', '2012-10-05', '3002', '5001');
INSERT INTO orders VALUES (70004, '110.5', '2012-08-17', '3009', '5003');
INSERT INTO orders VALUES (70007, '948.5', '2012-09-10', '3005', '5002');
INSERT INTO orders VALUES (70005, '2400.6', '2012-07-27', '3007', '5001');
INSERT INTO orders VALUES (70008,'5760','2012-09-10','3002'.'5001'):
INSERT INTO orders VALUES (70010, '1983.43', '2012-10-10', '3004', '5006');
INSERT INTO orders VALUES (70003,'2480.4','2012-10-10','3009','5003');
INSERT INTO orders VALUES (70012,'250.45','2012-06-27','3008','5002');
INSERT INTO orders VALUES (70011, '75.29', '2012-08-17', '3003', '5007');
INSERT INTO orders VALUES (70013, '3045.6', '2012-04-25', '3002', '5001');
```



SELECT ord no, ord date, purch amt FROM orders WHERE salesman id=5001;



20. From the following table, write a SQL query to select a range of products whose price is in the range Rs.200 to Rs.600. Begin and end values are included. Return pro_id, pro_name, pro_price, and pro_com.

Sample table: item_mast

PRO	_ID PRO_NAME	PRO_PRICE	PRO_COM	
101	Mother Board	3200.00	15	
102	Key Board	450.00	16	
103	ZIP drive	250.00	14	
104	Speaker	550.00	16	
105	Monitor	5000.00	11	
	DVD drive	900.00	12	
	CD drive	800.00	12	
	Printer	2600.00	13	
	Refill cartridge	350.00	13	
110	Mouse	250.00	12	
Ans :	CREATE TABLE item mast			
(_			
	PRO_ID int,			
	PRO_NAME varchar(20),			
	PRO_PRICE varchar(20),			
	PRO_COM int			
);				
INSER	INSERT INTO item mast VALUES (101, 'Mother Board', '3200.00', 15);			
INSER	INSERT INTO item_mast VALUES (102, Key Board', '450.00', 16);			
INSER	INSERT INTO item_mast VALUES (103, ZIP drive', '250.00', 14);			
INSER	T INTO item_mast VALUES (104,'Speaker','55	0.00',16);		
INSERT INTO item_mast VALUES (105, 'Monitor', '5000.00', 11);				
INSER	T INTO item_mast VALUES (106,'DVD drive','9	900.00',12);		
INSER	T INTO item_mast VALUES (107,'CD drive','80	0.00',12);		
INSER	INSERT INTO item mast VALUES (108, 'Printer', '2600.00', 13);			
INSERT INTO item mast VALUES (109, 'Refill cartridge', '350.00', 13);				
INSER	T INTO item_mast VALUES (110,'Mouse','250	.00',12);		

PRO_ID	PRO_NAME	PRO_PRICE	PRO_COM
101	Mother Board	3200.00	15
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
105	Monitor	5000.00	11
106	DVD drive	900.00	12
107	CD drive	800.00	12
108	Printer	2600.00	13
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

SELECT pro_id, pro_name, pro_price, pro_com FROM item_mast WHERE pro_price BETWEEN 200 AND 600;

pro_id	pro_name	pro_price	pro_com
102	Key Board	450.00	16
103	ZIP drive	250.00	14
104	Speaker	550.00	16
109	Refill cartridge	350.00	13
110	Mouse	250.00	12

21. From the following table, write a SQL query to calculate the average price for a manufacturer code of 16. Return avg.

Sample table: item_mast

PRO_ID PRO_NAME 101 Mother Board	PRO_PRICE 3200.00	PRO_COM
102 Key Board	450.00	16
103 ZIP drive	250.00	14
104 Speaker	550.00	16
105 Monitor	5000.00	11
106 DVD drive	900.00	12
107 CD drive	800.00	12
108 Printer	2600.00	13
109 Refill cartridge	350.00	13
110 Mouse	250.00	12

Ans:

SELECT AVG(PRO_PRICE) AS avg FROM item_mast WHERE PRO_COM=16;

avg 500

22. From the following table, write a SQL query to display the pro_name as 'Item Name' and pro_priceas 'Price in Rs.'

Sample table: item_mast

PRO_ID PRO_NAME	PRO_PRICE	PRO_COM
101 Mother Board	3200.00	15
102 Key Board	450.00	16
103 ZIP drive	250.00	14
104 Speaker	550.00	16
105 Monitor	5000.00	11
106 DVD drive	900.00	12
107 CD drive	800.00	12
108 Printer	2600.00	13
109 Refill cartridge	350.00	13
110 Mouse	250.00	12

Ans:

SELECT PRO_NAME AS 'Item Name', PRO_PRICE AS'Price in Rs.' FROM item_mast;

Item Name	Price in Rs.
Mother Board	3200.00
Key Board	450.00
ZIP drive	250.00
Speaker	550.00
Monitor	5000.00
DVD drive	900.00
CD drive	800.00
Printer	2600.00
Refill cartridge	350.00
Mouse	250.00

23. From the following table, write a SQL query to find the items whose prices are higher than or equal to \$250. Order the result by product price in descending, then product name in ascending. Return pro name and pro price.

Sample table: item_mast

PRO_ID PRO_NAME	PRO_PRICE	PRO_COM
101 Mother Board 102 Key Board	3200.00 450.00	15 16
103 ZIP drive 104 Speaker	250.00 550.00	14 16
105 Monitor	5000.00	11
106 DVD drive	900.00	12
107 CD drive 108 Printer	800.00 2600.00	12 13
109 Refill cartridge	350.00	13
110 Mouse	250.00	12

Ans:

SELECT PRO_NAME,PRO_PRICE FROM item_mast WHERE PRO_PRICE>=250 ORDER BY PRO_NAME ASC,PRO_PRICE DESC;

PRO_NAME A 1	PRO_PRICE $\sqrt{2}$
CD drive	800.00
DVD drive	900.00
Key Board	450.00
Monitor	5000.00
Mother Board	3200.00
Mouse	250.00
Printer	2600.00
Refill cartridge	350.00
Speaker	550.00
ZIP drive	250.00

24. From the following table, write a SQL query to calculate average price of the items for each company. Return average price and company code.

Sample table: item_mast

PRO_ID PRO_NAME	PRO_PRICE	PRO_COM
101 Mother Board	3200.00	15
102 Key Board	450.00	16
103 ZIP drive	250.00	14
104 Speaker	550.00	16
105 Monitor	5000.00	11
106 DVD drive	900.00	12
107 CD drive	800.00	12
108 Printer	2600.00	13
109 Refill cartridge	350.00	13
110 Mouse	250.00	12

Ans:

SELECT AVG(PRO_PRICE)AS average_price,PRO_COM AS companycode FROM item_mast GROUP BY PRO_COM;

average_price	companycode	
5000	11	
650	12	
1475	13	
250	14	
3200	15	
500	16	