Structured Query Language

Short Answer Type Questions-I [2 mark each]

Question 1:
Differentiate between delete and drop table command ?

Answer:
DELETE command is used to remove information from a particular row or rows. If used without any condition, it will delete all row information but not the structure of the table. It is a DML command. DROP table command is used to remove the entire structure of the table and information. It is a DDL command.

Question 2:
What is the use of wildcard ?

Answer:
The wildcard operators are used with the LIKE operator to search a value similar to a specific pattern in a column. There are 2 wildcard operators.
% – represents 0,1 or many characters
– = represents a single number or character

Question 3:
Write SQL query to add a column total price with datatype numeric and size 10, 2 in a table product.

Answer:
ALTER TABLE product ADD total price number

Question 4:
While creating table ‘customer’, Rahula forgot to add column ‘price’. Which command is used to add new column in the table. Write the command to implement the same.

Answer:
ALTER TABLE customer ADD price number(10,2)

Question 5:
Deepika wants to remove all rows from the table BANK. But he needs to maintain the structure of the table. Which command is used to implement the same ?

Answer:
DELETE FROM BANK

Question 6:
Sonal needs to display name of teachers, who have “0” as the third character in their name. She wrote the following query.
Select name from teacher where name = “$$0?”; But the query isn’t producing the result. Identify the problem.

Answer:
The wildcards are incorrect. The corrected query is SELECT name FROM teacher WHERE name
LIKE’ _ _ 0%’

Question 7:
Consider the following tables School and Admin and answer this question :
Give the output the following SQL queries :

1. Select Designation Count (*) From Admin Group By Designation Having Count (*) <2;
2. SELECT max (EXPERIENCE) FROM SCHOOL;
3. SELECT TEACHERNAME FROM SCHOOL WHERE EXPERIENCE >12 ORDER BY TEACHER NAME;
4. SELECT COUNT (*), GENDER FROM ADMIN GROUP BY GENDER;

Table : SCHOOL

CODE	TEACHER	SUBJECT	DOJ	PERIODS	EXPERIENCE
1001	RAVI SHANKAR	ENGLISH	12/3/2000	24	10
1009	PRIYARAI	PHYSICS	03/09/1998	26	12
1203	LIS ANAND	ENGLISH	09/04/2000	27	5
1045	YASHRAJ	MATHS	24/8/2000	24	15
1123	GANAN	PHYSICS	16/7/1999	28	3
1167	HARISHB	CHEMISTRY	19/10/1999	27	5
1215	UMESH	PHYSICS	11/05/1998	22	16

TABLE : ADMIN

CODE	GENDER	DESIGNATION
1001	MALE	VICE PRINCIPAL
1009	FEMALE	COORDINATOR

1203	FEMALE	COORDINATOR
1045	MALE	HOD
1123	MALE	SENIOR TEACHER
1167	MALE	SENIOR TEACHER
1215	MALE	HOD

Answer:

(i)

VICE PRINCIPAL	01

(ii)

16

(iii)

UMESH
YASH RAJ

Short Answer Type Questions-II [3 mark each]

Question 1:

Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii), which are based on the tables.

Table: VEHICLE

CODE	VTYPE	PERKM
101	VOLVO BUS	160
102	AC DELUXE BUS	150
103	ORDINARY BUS	90
105	SUV	40

104	CAR	20

Note :

1. PERKM is Freight Charges per Kilometer.
2. VTYPE is Vehicle Type.

Table: TRAVEL

No.	NAME	TDATE	KM	CODE	NOP
101	Janish Kin	2015-11-13	200	101	32
103	Vedika Sahai	2016-04-21	100	103	45
105	Tarun Ram	2016-03-23	350	102	42
102	John Fen	2016-02-13	90	102	40
107	Ahmed Khan	2015-01-10	75	104	2
104	Raveena	2016-05-28	80	105	4
106	Kripal Anya	2016-02-06	200	101	25

Note:

- NO is Traveller Number
- KM is Kilometer Travelled
- NOP is number of travellers travelled in vehicle.
- TDATE is Travel Date

1. To display NO, NAME, TDATE from the table TRAVEL in descending order of NO.
2. To display the NAME of all the travellers from the table TRAVEL who are travelling by vehicle with code 101 or 102.
3. To display the NO and NAME of those travellers from the table TRAVEL who travelled between '2015-1231' and '2015-04-01'.
4. To display all the details from table TRAVEL for the travellers, who have travelled distance more than 100 KM in ascending order of NOP .
5. SELECT COUNT (*), CODE FROM TRAVEL GROUP BY CODE HAVING COUNT(*)>1;
6. SELECT DISTINCT CODE FROM TRAVEL;
7. SELECT A. CODE,NAME, VTYPE

FROM TRAVEL A,VEHICLE B
WHERE A.CODE=B.CODE AND 'KM<90;
8.SELECT NAME, KM*PERKM
FROM TRAVEL A,VEHICLE B
WHERE A.CODE=B. CODE AND A.CODE='105';

Answer:

1. Select NO, Name, TDATE from TRAVEL order by NO desc
2. Select NAME from TRAVEL, where CODE in (101, 102)
3. Select NO, NAME from TRAVEL where TDATE between ’2015-12-31′ and ‘2015-04-01’.
4. Select * from TRAVEL where KM > 100 order by NOP.
5.

	COUNT (*)	CODE
	2	101
	2	102

6.

DISTANCE (CODE)
101
103
102
104
105

7.

CODE	NAME	VTYPE
104	Ahmed khan	CAR
105	Raveena	SUV

8.

NAME KM*PERKM
Tarun Ram 14000

Question 2:

Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii), which are based on the tables.

Table :VEHICLE

VCODE	VEHICLETYPE	PERKM
VOl	VOLVO BUS	150
V02	AC DELUXE BUS	125
V03	ORDINARY BUS	80
V0’5	SUV	30
V04	CAR	18

Note:
PERKM is Freight Charges per kilometer.
Table : TRAVEL

CNo	CNAME	TRAVELDATE	KM	VCODE	NOP
101	K.Niwal	2015-12-13	200	VOl	32
103	Fredrick Sym	2016-03-21	120	V03	45
105	Hitesh Jain	2016-04-23	450	V02	42
102	Ravi Anish	2016-01-13	80	V02	40
107	John Malina	2015-02-10	65	V04	2
104	Sahanubhuti	2016-01-28	90	V0 5	4
106	Ramesh Jaya	2016-04-06	100	VOl	25

Note:

- Km is Kilometers Travelled

- NOP is number of plassangers travelled in vehicle.

1.To display CNO, CNAME, TRAVELDATE from the table TRAVEL in descending order of CNO.
2.To display the CNAME of all the customers from the table TRAVEL who are travelling by vehicle with code V01 or V02.
3.To display the CNO and CNAME of those customers from the table TRAVEL who travelled between '2015-12-31' and '2015-05-01'.
4.To display all the details from table TRAVEL for the customers, who have travel distance more than 120 KM in ascending order of NOP.
5.SELECT COUNT (*) , VCODE FROM TRAVEL
GROUP BY VCODE HAVING COUNT(*)>1;
6. SELECT DISTINCT VCODE FROM TRAVEL;
7. SELECT A. VCODE, CNAME, VEHICLETYPE
FROM TRAVEL A,VEHICLE B
WHERE A.VCODE=B.VCODE AND KM<90;
8. SELECT CNAME, KM*PERKM FROM TRAVEL A,VEHICLE B
WHERE A.VCODE=B . VCODE AND A.VCODE= 'V05 ' ;

Answer:

(i) Select CNO, CNAME, TRAVELDATE from TRAVEL order by CNO desc
(ii) Select CNAME from TRAVEL, where VCODE in ('VOl', ' V02 ')
(iii)Select CNO, CNAME from TRAVEL where TRAVELDATE between '2015-12-31' and '2015-05-01 '
(iv) Select * from TRAVEL where KM > 120 order by NOP.
(v)

COUNT (*)	VCODE
2	V01
2	V02

(vi)

DISTANCE (CODE)
V01
V03
V02
V04
V05

(vii)

VCODE	CNAME	VEHICLETYPE
V04	JOHN MALINI	CAR

(viii)
CNAME KM*PERKM
Sahanubhuti 30
Note: PERKM is neither given in query nor in TABLE so no output is also acceptable.

Long Answer Type Questions [4 marks each]

Question 1:
Consider the following tables FACULTY and COURSES. Write SQL commands for the statements (i) to (v) and give outputs for SQL queries (vi) to (vii)
FACULTY

F_ID	Fname	Lname	Hire_date	Salary
102	Amit	Mishra	12-10-1998	12000
103	Nitin	Vyas	24-12-1994	8000
104	Rakshit	Soni	18-5-2001	14000
105	Rashmi	Malhotra	11-9-2004	11000
106	Sulekha	Srivastava	5-6-2006	10000

COURSES

C_ID	FJD	Cname	
C21	102	Grid Computing	40000
C22	106	System Design	16000
C23	104	Computer Security	8000

C24	106	Human Biology	15000
C25	102	Computer Network	20000
C26	105	Visual Basic	6000

(i) To display details of those Faculties whose salary is greater than 12000.

Answer:

Select * from faculty
where salry > 12000;
(ii) To display the details of courses whose fees is in th range of 15000 to 50000(both values included).

Answer:

Select * from Courses
where fees between 15000 and 50000;
(iii)To increase the fees of all courses by 500 of “System Design” Course.
<strong

Answer:
Update courses set fees = fees + 500
where Cname = “System Design”;
(iv)To display details of those courses which are taught by ‘Sulekha’ in descending order of courses.

Answer:
Select * from faculty fac, courses cour
where fac.f_id = cour.f_id and fac.fname = ‘Sulekha’ order by cname desc;
(v)Select COUNT (DISTINCT F_ID) from COURSES;

Answer:
4
(vi)Select MIN (Salary) from FACULTY, COURSES where COURSES.F_ID = FACULTY.FJD;

Answer:
6000

Question 2:
Consider the following DEPT and WORKER tables. Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii):

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 . Y;	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	DOl
1005	RSAHAY	2013-11-18	1987-03-31	MALE	D02
1006	Jaya Priya	2014-06-09	1985-06-23	FEMALE	DQ5

Note : DOJ refers to date of joining and DOB refers to date of birth of workers.
(i)To display Wno. Name, Gender from the table WORKER in descending order of Wno.
Ans.

Answer:
SELECT WNO, Name, Gender FROM Worker
ORDER BY Wno DESC;
(ii)To display the Name of all the FEMALE workers from the table WORKER.

Answer:
SELECT Name FROM Worker
WHERE gender = 'FEMALE';
(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'.

Answer:
SELECT Wno, Name FROM Worker
WHERE DOB BETWEEN '1987-01-01' AND '1991-12-01';

OR

SELECT Wno, Name FROM worker
WHERE DOB > = 1987-01-01′ AND DOB < = '1991-12-01';
WHERE DOB BETWEEN '1987-01-01' AND '1991-12-01';

OR

WHERE DOB > = '1987-01-01' AND DOB < = '1991-12-01';
(iv)To count and display MALE workers who have joined after '1986-01-01'.

Answer:
SELECT COUNT (*) FROM Worker
WHERE GENDER = 'MALE' AND DOJ > '198601-01';

OR

SELECT * FROM Worker
WHERE GENDER = 'MALE' AND DOJ > '198601-01';
(Any valid query for counting and/or displaying for male workers will be awarded 1 mark)
(v) SELECT COUNT (*), DCODE FROM WORKER GROUP BY DCODE HAVING COUNT (*) > 1;

Answer:
COUNT (*) DCODE

2 D01

2 D05
(vi)SELECT DISTINCT DEPARTMENT FROM DEPT;

Answer:
Department
MEDIA
MARKETING

INFRASTRUCTURE
FINANCE
HUMAN RESOURCE
(viii)SELECT NAME, DEPARTMENT, CITY FROM WORKER W, DEPT D WHERE W DCODE = D. DCODE AND WNO < 1003;

Answer:

NAME	DEPARTMENT	CITY
George K	MEDIA	DELHI
Ryma Sen	infrastructure	MUMBAI

(viii) SELECT MAX (DOJ), MIN (DOB) FROM WORKER;

Answer: MAX (DOJ) MIN (DOB)
2014-06-09 1984-10-19
Note : In the output queries, please ignore the order of rows

Question 3:
Consider the following DEPT and EMPLOYEE tables. Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii).
TABLE : DEPT

DCODE	DEPARTMENT	LOCATION
D01	INFRASTRUCTURE	DELHI
D02	MARKETING	DELHI
D03	MEDIA	MUMBAI
DOS	FINANCE	KOLKATA
D04	HUMAN RESOURCE	MUMBAI

TABLE : EMPLOYE

ENO	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	198410-19	MALE	D04
1004	Manila Sahai	2012-12-09	1986-11-14	FEMALE	D01
1005	RSAHAY	2013-11-18	1987-03-31	MALE	D02
1006	JAYA Priya	2014-06-09	1985-06-23	FEMALE	D05

Note :DOJ refers to date of joining and DOB refers to date of Birth of employees.
(i)To display Eno, Name, Gender from the table EMPLOYEE in ascending order of Eno.

Answer: SELECT Eno, Name, Gender FROM Employee ORDER BY Eno;
(ii)To display the Name of all the MALE employees from the table EMPLOYEE.

Answer: SELECT Name FROM EMPLOYEE WHERE
Gender = 'MALE';
(iii)To display the Eno and Name of those employees from the table EMPLOYEE who are born between '1987-01-01' and '1991-12-01'.

Answer:
SELECT Eno, Name FROM Employee
WHERE DOB BETWEEN '1987-01-01' AND '1991-12-01';

OR

SELECT Eno, Name FROM Employee
WHERE DOB > = '1987-01-01′ AND DOB < ='1991-12-01';

OR

SELECT Eno, Name FROM Employee WHERE DOB > '1987-01-01' AND DOB < '199112-01';
WHERE DOB BETWEEN '1987-01-01' AND '1991-12-01';

OR

WHERE DOB > = '1987-01-01' AND DOB < = '1991-12-01';

OR

WHERE DOB > '1987-01-01' AND DOB < '199112-01');
(iv)To count and display FEMALE employees who have joined after '1986-01-01';

Answer: SELECT count (*) FROM Employee
WHERE GENDER = 'FEMALE' AND DOJ > '1986-01-01';

OR

SELECT * FROM Employee
WHERE GENDER = 'FEMALE' AND DOJ > '1986-01-01';

(Any valid query for counting and/or displaying for female employees will be awarded 1 mark)
(v)SELECT COUNT (*), DCODE FROM EMPLOYEE
GROUP BY DCODE HAVING COUNT (*) > 1;

Answer:

COUNT	DCODE
2	D01
2	D05

(½Mark for correct output)

(vi)SELECT DISTINCT DEPARTMENT FROM DEPT

Answer:

Department
INFRASTRUCTURE
MARKETING
MEDIA
FINANCE
HUMAN RESOURCE
(vii) SELECT NAME, DEPARTMENT FROM EMPLOYEE E, DEPT D WHERE E. DCODE = D.DCODE AND ENO <1003;

NAME	DEPARTMENT
George K	MEDIA
Ryma Sen	infrastructure

(viii) SELECT MAX (DOJ), MIN (DOB) FROM EMPLOYEE;

Answer:
MAX (DOJ) **MIN (DOB)**
2014-06-09 1984-10-19
Note : In the output queries, please ignore the order of rows.

Question 4:
Write SQL commands for the queries (i) to (iv) and output for (v) & (viii) based on a table COMPANY and CUSTOMER

CID	NAME	CITY	PRODUCTNAME
111	SONY	DELHI	TV

222	NOKIA	MUMBAI	MOBILE
333	ONIDA	DELHI	TV
444	SONY	MUMBAI	MOBILE
555	BLACKBERRY	MADRAS	MOBILE
666	DELL	DELHI	LAPTOP

CUSTID	NAME	PRICE	QTY	CID
101	ROHAN SHARMA	70,000	20	222
102	DEEPAK KUMAR	50,000	10	666
103	MOHAN KUMAR	30,000	5	111
104	SAHIL BANSAL	35,000	3	333
105	NEHA SONI	25,000	7	444
106	SONAL AGGARWAL	20,000	5	333
107	ARUN SINGH	50,000	15	666

1. To display those company name which are having prize less than 30000.
2. To display the name of the companies in reverse alphabetical order.
3. To increase the prize by 1000 for those customer whose name starts with'S?
4. To add one more column totalprice with decimal(10,2) to the table customer
5. SELECT COUNTO ,CITY FROM COMPANY GROUP BY CITY;
6. SELECT MIN(PRICE), MAX(PRICE) FROM CUSTOMER WHERE QTY>10;
7. SELECT AVG(QTY) FROM CUSTOMER WHERE NAME LIKE "%r%;
8. SELECT PRODUCTNAME,CITY, PRICE FROM COMPANY, CUSTOMER WHERE COMPANY.CID=CUSTOMER.CID AND PRODU CTN AME="MOBILE";

Answer:

1. To display those company name which are having prize less than 30000.
SELECT NAME FROM COMPANY WHERE COMPANY.CID=CUSTOMER. CID
AND PRICE < 30000
2.To display the name of the companies in reverse alphabetical order.
SELECT NAME FROM COMPANY
ORDER BY NAME DESC?;

3.To increase the prize by 1000 for those customer whose name starts with “S”
UPDATE CUSTOMER
SET PRICE = PRICE + 1000;
WHERE NAME LIKE ‘S%’;
4.To add one more column totalprice with decimal(10,2) to the table customer
ALTER TABLE CUSTOMER
ADD TOTALPRICE DECIMAL(10,2);
5.SELECT COUNT(*) ,CITY FROM COMPANY GROUP BY CITY;

3	DELHI
2	MUMBAI
1	MADRAS

6.SELECT MIN(PRICE), MAX(PRICE) FROM
CUSTOMER WHERE QTY> 10;
50000,70000
7.SELECT AVG(QTY) FROM CUSTOMER
WHERE NAME LIKE “%r%; [
8.SELECT PRODUCTNAME, CITY, PRICE FROM COMPANY, CUSTOMER WHERE COMPANY.CID=CUSTOMER.CID AND PRODUCTNAME=”MOBILE”;

MOBILE	MUMBAI	70000
MOBILE	MUMBAI	25000

Question 5:
Consider the following tables SCHOOL and ADMIN and answer this question :
Table : SCHOOL

CODE	TEACHERNAME	SUBJECT	DOJ	PERIODS	EXPERIENCE
1001	Ravi Shankar	English	12/3/2000	24	10
1009	Priya Rai	Physics	03/09/1998	26 ,	12
1203	Lisa Anand	English	09/04/2000	27	5
1045	Yashraj	Maths	24/08/2000	24	15
1123	Ganan	Physics	16/07/1999	28	3
1167	Harish B	Chemistry	19/10/1999	27	5
1215	Umesh	Physics	11/05/1998	22	16

Table : Admin

Code	Gender	Designation
1001	Male	Vice Principal
1009	Female	Coordinator
1203	Female	Coordinator
1045	Male	HOD
1123	Male	Senior Teacher
1167	Male	Senior Teacher
1215	Male	HOD

Write SQL statements for the following :

1. To display TEACHERNAME, PERIODS of all teachers whose periods are more than 25.
2. To display all the information from the table SCHOOL in descending order of experience.
3. To display DESIGNATION without duplicate entries from the table ADMIN.
4. To display TEACHERNAME, CODE and corresponding DESIGNATION from tables SCHOOL and ADMIN of Male teachers.

Answer:

1. To display TEACHERNAME, PERIODS of all teachers whose periods are more than 25.
SELECT TEACHERNAME, PERIODS
FROM SCHOOL WHERE PERIODS >25.
2.To display all the information from the table SCHOOL in descending order of experience.

- SELECT * FROM SCHOOL;

3.To display DESIGNATION without duplicate entries from the table ADMIN.
SELECT DISTINCT DESIGNATION FROM ADMIN;
4.To display TEACHERNAME, CODE and corresponding DESIGNATION from tables SCHOOL and ADMIN of Male teachers.
SELECT TEACHERNAME.CODE
DESIGNATION FROM SCHOOL.CODE = ADMIN.CODE
WHERE GENDER = MALE;

Question 6:
Answer the questions (a) and (b) on the basis of the following tables SHOPPE and ACCESSORIES.

Answer:

Id	SName	Area
S001	ABC computronics	CP
S002	All Infotech Media	GKII
S003	Tech Shoppe	CP
S004	Geeks Tecno Soft	Nehru Place
S005	Hitech Tech Store	Nehru Place

No	Name	Price	Id
A01	Mother Board	12000	SOI
A02	Hard Disk	5000	SOI
A03	Keyboard	500	S02
A04	Mouse	300	SOI
A05	Mother Board	13000	S02
A06	Keyboard	400	S03
A07	LCD	6000	S04
T08	LCD	5500	S05
T09	Mouse	350	S05
T10	Hard Disk	4500	S03

1. To display Name and Price of all the Accessories in ascending order of their Price.
2. To display Id and SName of all Shoppe located in Nehru Place.
3. To display Minimum and Maximum Price of each Name of Accessories.
4. To display Name, Price of all Accessories and their respective SName where they are available.

(b)Write the output of the following SQL commands:

1. SELECT DISTINCT NAME FROM ACCESSORIES WHERE PRICE > =5000;
2. SELECT AREA, COUNT(*) FROM SHOPPE GROUP BY AREA;
3. SELECT COUNT (DISTINCT AREA) FROM SHOPPE;
4. SELECT NAME, PRICE*0.05 DISCOUNT FROM ACCESSORIES

Answer:

(a) (i) SELECT Name, Price FROM ACCESSORIES ORDER BY Prices;
(ii)SELECT ID, SName FROM SHOPPE WHERE Area=”Nehru Place”;
(iii)SELECT Name, max (Price); min(Price) FROM ACCESSORIES, Group By Name;
(iv)SELECT Name, price, Sname FROM ACCESSORIES, SHOPPE WHERE SHOPPE.ID=ACCESSORIES.ID

(b)**(i) Name**
Mother Board
Hard Disk
LCD
(ii)

Area	Count
CP	2
GK II	1
Nehru Place	2

(iii) count(Distinct Area)
3
(iv) Name

Name	DISCOUNT
600	600
Hard Disk	250
Key Board	20
Hard Disk	225

Question 7:
Answer the questions (a) to (g) on the basics of the following tables APPLICANTS and COURSB.

1. To display name, fee, gender, joinyear about the applicants, who have joined before 2010.

2. To display names of applicants, who are paying fee more than 30000.
3. To display names of all applicants in ascending order of their joinyear.
4. To display the year and the total number of applicants joined in each YEAR from the table APPLICANTS.

No	Name	Fee	Gender	C_ID	Join Year
1012	Amandeep	30000	M	A01	2012
1102	Avisha	25000	F	A02	2009
1103	Ekant	30000	M	A02	2011
1049	Arun	30000	M	A03	2009
1025	Amber	40000	M	A02	2011
1106	Ela	40000	F	A05	2010
1017	Nikita	35000	F	A03	2012
1108	Arleena	30000	F	A03	2012
2109	Shakti	35000	M	A04	2011
1101	Kirat	25000	M	A01	2012

Table Courses

C_ID	Course
A01	Fashion Design
A02	Networking
A03	Hotel Management
A04	Event Manangement
A05	Office Management

5.To display the C_ID (i.e., CourselD) and the number of applicants registered in the course from the APPLICANTS and table.
6.To display the applicant's name with their respective course's name from the tables APPLICANTS and COURSES.
7.Give the output statements:of following SQL statements :
(i)SELECT Name, Joinyear FROM APPLICANTS
WHERE GENDER='F' and C_ID='A02';
(ii) SELECT MIN (Joinyear) FROM APPLICANTS
(iii)SELECT AVG (Fee) FROM APPLICANTS WHERE C_ID='A01' OR C_ID='A05';
(iv)SELECT SUM (Fee), C_ID FROM APPLICANTS
GROUP BY C_ID HAVING COUNT(*)=2;

Answer:

(a) SELECT NAME,FEE,GENDERJOINYEAR FROM APPLICANTS
WHERE JOINYEAR<2000;
(b)SELECT NAME FROM APPLICANTS
WHERE FEE>30000;
(c)SELECT NAME FROM APPLICANTS
ORDERBY JOINYEAR ASC;
(d)SELECT YEAR, COUNTf) FROM APPLICANTS;

(e)SELECT C_ID, COUNT(*) FROM APPLICANTS, COURSES

WHERE APPLICANTS.C_ID=COURSES; C_ID;
(f)SELECT NAME,COURSE FROM
APPLICANTS, COURSES
WHERE APPLICANTS.C_ID=COURSES. C_ID;
(g)(i) Avisha 2009
(ii)2009
(iii)67
(iv)55000 A01

Question 8:
Write SQL queries for (a) to (g) and write the output for the SQL queries mentioned shown in (hi) to (h4) parts on the basis of table ITEMS and TRADERS :
Table : ITEMS

CODE	INAME	QTY	PRICE	COMPANY	TCODE
1001	DIGITAL PAD 12i	120	11000	XENITA	T01
1006	LED SCREEN 40	70	38000	SANTORA	T02
1004	CAR GPS SYSTEM	50	21500	GEOKNOW	T01
1003	DIGITAL CAMERA 12X	160	8000	DIGICLICK	T02
1005	PEN DRIVE 32 GB	600	1200	STOREHOME	T03

Table : TRADERS

TCode	TName	City
T01	ELECTRONIC SALES BUSY STORE CORP DISP HOUSE	MUMBAI
T03	INC	DELHI
T02		CHENNAI

- To display the details of all the items in ascending order of item names (i.e., INAME).
- To display item name and price of all those items, whose price is in the range of 10000 and 22000 (both values inclusive).
- To display the number of items, which are traded by each trader. The expected output of this query should be:
- To display the price, item name and quantity (i.e., qty) of those items which have quantity more than 150.
- To display the names of those traders, who are either from DELHI or from MUMBAI.
- To display the names of the companies and the names of the items in descending order of company names.
- Obtain the outputs, of the following SQL queries based on the data given in tables ITEMS and TRADERS above.

(h1)SELECT MAX (PRICE), MIN (PRICE) FROM ITEMS;
(h2) SELECT PRICE*QTY
FROM ITEMS WHERE CODE-1004;
(h3) SELECT DISTINCT TCODE FROM ITEMS;
(h4) SELECT INAME, TNAME
FROM ITEMS I, TRADERS T WHERE I.TCODE=T.TCODE AND
QTY<100;

Answer:

(a) SELECT INAME FROM ITEMS ORDER BY INAME ASC;
(b)SELECT INAME, PRICE FROM ITEMS WHERE PRICE => 10000 AND PRICE =< 22000;
(c)SELECT TCODE, COUNT (CODE) FROM
ITEMS GROUP BY TCODE;
(d)SELECT PRICE, INAME, QTY FROM ITEMS
WHERE (QTY> 150);
(e)SELECT TNAME FROM TRADERS
WHERE (CITY = “DELHI”) OR (CITY = “MUMBAI”)
ORDER BY COMPANY DESC;
(g) (h1) 38000
1200
(h2) 1075000
(h3) T01

T02
T03
(h4) LED SCREEN 40 DISPHOUSE INC
CAR GPS SYSTEM ELECTRONICS
SALES

Question 9:
Write SQL queries for (a) to (f) and write the outputs for the SQL queries mentioned shown in (hi) to (h4) parts on the basis of tables PRODUCTS and SUPPLIERS
Table : PRODUCTS

PID	PNAME	QTY	PRICE	COMPANY	SUPCODE
101	DIGITAL CAMERA 14X	120	12000	RENBIX	SOI
102	DIGITAL PAD lli	100	22000	DIGI POP	S02
104	PEN DRIVE 16 GB	500	1100	STOREKING	SOI
106	LED SCREEN 32	70	28000	DISPEXPERTS	S02
105	CAR GPS SYSTEM	60	12000	MOVEON	S03

Table : SUPPLIERS

SUPCODE	SNAME	CITY
SOI	GET ALL INC	KOLKATA
S03	EASY MARKET	DELHI
	CORP	
S02	DIGI BUSY GROUP	CHENNAI

(a)To display the details of all the products in ascending order of product names (e., PNAME).
(b)To display product name and price of all those products, whose price is in the range of 10000 and 15000 (both values inclusive).
(c)To display the number of products, which are supplied by each supplier, i.e., the expected output should be;
2
2
1
(d)To display the price, product name and quantity (i.e., qty) of those products which

have quantity more than 100.
(e)To display the names of those suppliers, who are either from DELHI or from CHENNAI.
(f)To display the name of the companies and the name of the products in descending order of company names.
(g)Obtain the outputs of the following SQL queries based on the data given in tables PRODUCTS and SUPPLIERS above.
(gl) SELECT DISTINCT SUPCODE FROM PRODUCTS;
(g2) SELEC MAX (PRICE), MIN (PRICE) FROM PRODUCTS
(g3) SELECT PRICE*QTY
FROM PRODUCTS WHERE PID = 104;
(g4) SELECT PNAME, SNAME
FROM PRODUCTS P, SUPPLIERS S WHERE P SUPCODE = S. SUPCODE AND QTY>100;

Answer:

(a) SELECT * FROM PRODUCTS ORDER. BY PNAME ASC;
(b)SELECT PNAME, PRICE FROM PRODUCTS WHERE ((PRICE => 10000) AND (PRICE = < 15000));
(c)SELECT SUPCODE, COUNT (PID) [Yz] FROM PRODUCTS GROUP BY SUPCODE;
(d)SELECT PRICE, PNAME, QTY FROM PRODUCTS WHERE (QTY > 100);
(e)SELECT SNAME FROM SUPPLIERS WHERE ((CITY = “DELHI”) OR (CITY = “CHENNAI”));
(f)SELECT COMPANY, PNAME FROM PRODUCTS ORDER BY COMPANY DESC;
(g) SOI
(g1) S02
S03
(g2) 28000
1100
(g3) 550000
(g4) PNAME SNAME
DIGITAL CAMERA 14 X GET ALL INC
PENDRIVE 16 GB GET ALL INC

Question 10:

Give a suitable example of a table with sample data and illustrate Primary and Alternate Keys in it. Consider the following tables CARDEN and CUSTOMER and answer (b) and (c) parts of this question :

Table : CARDEN

Ceode	CarName	Make	Colour	Capacity	Charges
501	A-Star	Suzuki	RED	3Q	14

503	Indigo	Tata	SILVER	3	12
502	Innova	Toyota	WHITE	7	15
509	SX4	Suzuki	SILVER	4	14
510	C Class	Mercedes	RED	4	35

Table : CUSTOMER

CCode	Cname	Ceode
1001	Hemant Sahu	501
1002	Raj Lai	509
1003	Feroza Shah	503
1004	Ketan Dhal	502

(b)Write SQL commands for the following statements:

1. To display the names of all the silver coloured cars.
2. Tp display names of car, make and capacity of cars in descending order of their sitting capacity.
3. To display the highest charges at which a vehicle can be hired from CARDEN.
4. To display the customer name and the corresponding name of the cars hired by them.

(c)Give the output of the following SQL queries:
(i)SELECT COUNT(DlST!NCT Make) FROM CARDEN;
(ii)SELECT MAX(Charges), MIN (Charges) FROM CARDEN;
SELECT COUNTO, Make FROM CARDEN;
(iv) SELECT CarName FROM CARDEN WHERE Capacity=4;

Answer:

(a) Primary Key of CARDEN = Ceode of CARDEN
Alternate Key = CarName:
Primary key of Customer = Ceode
Alternate Key of Customer = Cname
(b) (i) SELECT CarName From CARDEN
WHERE Color = “SILVER”;
(ii)SELECT CarName, Make, Capacity
From CARDEN ORDER BY Capacity DESC;
(iii)SELECT MAX(Charges) From CARDEN;
(iv)SELECT Cname, CarName From

CUSTOMER, CARDEN WHERE CARDEN. Ccode = CUSTOMER. Ccode;
(c) (i) 4
(ii) MAX(Charges) MIN(Charges)
35 12
(iii)5
(iv)SX4
C Class

Question 11:
(a) Give a suitable example of a table with sample data and illustrate Primary agd Candidate Keys in it. Consider the following tables CABHUB and CUSTOMER and answer (b) and (c) parts of this question :
Table : CABHUB

Vcode	VehicleName	Make	Colour	Capacity	Charges
100	Innova	Toyota	WHITE	7	15
102	SX4	Suzuki	BLUE	4	14
104	C Class	Mercedes	RED	4	35
105	A-Star	Suzuki	WHITE	3	14
108	Indigo	Tata	SILVER –	3	12

Table : CUSTOMER

Ceode	Cname	Vcode
1	Hemant Sahu	101
2	Raj Lai	108
3	Feroza Shah	105
4	Ketan Dhal	104

(b) Write SQL commands for the following statements:

1. To display the names of all the white coloured vehicles.
2. To display name of vehicle name and capacity of vehicles in ascending order of their sitting capacity.
3. To display the highest charges at which a vehicle can be hired from CABHUB.
4. To display the customer name and the corresponding name of the vehicle hired by them.

(c)Give the output of the following SQL queries :

1. SELECT COUNT (DISTINCT Make) FROMCABHUB;
2. SELECT MAX(Charges), MIN(Charges) FROM CABHUB;
3. SELECT COUNT (*) Make FROM CABHUB;
4. SELECT Vehicle FROM CABHUB WHERE Capacity=4;

Answer:

(a) Primary Key of CABHUB = Vcode
Alternate key of CABHUB = Vehicle Name.
Primary Key of Customer = Ccode
Alternate Key of CUSTOMER = Cname.
(b) (i) SELECT VehicleName FROM CABHUB WHERE Colour =”WHITE”;
(ii)SELECT VehicleName, Capacity From CABHUB ORDER BY Capacity ASC;
(iii)SELECT MAX(Charges) FROM CABHUB;
(iv)SELECT Cname,VehicleName FROM CABHUB, CUSTOMER WHERE CUSTOMER. Vcode=CABHUB. Vcode;
(c)4
(ii)Max(Charges) Min(Charges)
35 12
(iii)5
(iv)SX4
C Class

Long Answer Type Question – II

Question 1:

Watchid	Watch_Name	Price	Type	Qty_Store
‘wool	High Time	10000	Unisex	100
W002	Life Time	15000	Ladies	150
W003	Wave	20000	Gents	200
W004	HlghFashion	7000	Unisex	250
W005	GoldenTime	25000	Gents	100

Watchid	Qly_Sold	Quarter
wool	10	1

W003	5	1
W002	20	2
W003	10	2
W001	15	3
W002	20	3
W005	10	3
W003	15	4

1. To display all the details of those watches whose name ends with 'Time'
2. To display watch's name and price of those watches which have price range in between 5000-15000.
3. To display total quantity in store of Unisex type watches.
4. To display watch name and their quantity sold in first quarter.
5. select max(price), min(qty_store) from watches;
6. select quarter, sum(qty_sold) from sale group by quarter;
7. select watch_name,price, type from watches w, sale s where w.watchid!=s.watchid;
8. select watch_name, qty_store, sum(qty_sold), qty_store-sum(qty_sold) "Stock" from watches w, sales where w. watchid=s. watchid group by s.watchid;

Answer:

(i) Select*from watches where watch_name like'Time'
(ii)select watchjname, price from watches where price between 5000 and 15000;
(iii)select sum(qty_store) from watches where type like 'Unisex';
(iv)select watch name, qty_sold from watches w,sale s where w.watchid=s.watchid and quarter=l;
(v)

max(price)	min(qty_store)
25000	100

(vi)

quarter	suxn(qty_sold)
1	15
2	30
3	45
4	15

(vii)

Watch_name	price	type
HighFashion	7000	Unisex

(viii)

Watch_name	qty_store	qty_sold	Stock
HighTime	100	25	75
LifTime	150	40	110
Wave	200	30	170
GoldenTime	100	10	90