WORKSHEET WITH SOLUTION
SQL (CS & IP)

1	What are DDL and DML? Give one command of each.
Ans.	DDL stands for Data Definition Language. DDL commands are used to manipulate the database objects like database, table, views etc. In simple words DDL commands are used to create table, changing the structure of table or dropping the table. Example: CREATE, ALTER & DROP DML stands for Data Manipulation Language. DML commands are used to manipulate the information stored in a table. Like adding new records, changing existing records or deleting the records. Example: INSERT, UPDATE & DELETE
2	Which command is used to add new column in existing table?
Ans.	ALTER TABLE
3	Which clause is used to search for NULL values in any column?
Ans.	IS NULL
4	Which command is used to see information like name of columns, data type, size etc. ?
Ans.	DESCRIBE OR DESC
5	Which clause is used for pattern matching? What are the 2 main characters used for matching the pattern?
Ans.	LIKE % (percent) and _ (underscore)
6	Which clause is used to see the output of query in ascending or descending order?
Ans.	ORDER BY
7	Which clause is used to eliminate the duplicate rows from output?
Ans.	DISTINCT
8	What is the minimum number of column required in MySQL to create table?
Ans.	ONE (1)
9	Which command is used to remove the table from database?
Ans.	DROP TABLE
10	Which command is used to add new record in table?
Ans.	INSERT INTO
11	Which option of ORDER BY clause is used to arrange the output in descending order?
Ans.	DESC
12	Which command is used to change the existing information of table?
Ans.	UPDATE
13	Raj is a database programmer, He has to write the query from EMPLOYEE table to search for the employee whose name begins from letter 'R', for this he has written the query as: SELECT * FROM EMPLOYEE WHERE NAME='R%'; But the query is not producing the correct output, help Raj and correct the query so that he gets the desired output.
Ans.	SELECT * FROM EMPLOYEE WHERE NAME **LIKE** 'R%';
14	Raj is a database programmer, He has to write the query from EMPLOYEE table to search for the employee who are not getting any commission, for this he has written the query as: SELECT * FROM EMPLOYEE WHERE commission=null; But the query is not producing the correct output, help Raj and correct the query so that he gets the desired output.
Ans.	SELECT * FROM EMPLOYEE WHERE commission **IS** null;
15	Raj is a database programmer, has to write the query from EMPLOYEE table to search for the employee who are working in 'Sales' or 'IT' department, for this he has written the query as: SELECT * FROM EMPLOYEE WHERE department='Sales' or 'IT'; But the query is not producing the correct output, help Raj and correct the query so that he gets the desired output.
Ans.	SELECT * FROM EMPLOYEE WHERE department='Sales' or **department**='IT'; ***OR*** SELECT * FROM EMPLOYEE WHERE department **IN ('Sales','IT')**

16 The following query is producing an error. Identify the error and also write the correct query.
SELECT * FROM EMP ORDER BY NAME WHERE SALARY>=5000;

Ans. As per MySQL, ORDER BY must be the last clause in SQL QUERY, and in this query ORDER BY is used before WHERE which is wrong, the correct query will be:
SELECT * FROM EMP WHERE SALARY>=5000 ORDER BY NAME;

17 If Table Sales contains 5 records and Raj executed the following queries; find out the output of both the query.
(i) Select 100+200 from dual;
(ii) Select 100+200 from Sales;

Ans.
(i) 300
(ii) 300
300
300
300
300

18 What is the difference between Equi-Join and Natural Join?

Ans. In Equi join we compare value of any column from two tables and it will return matching rows. In Equi-join common column appears twice in output because we fetch using (*) not by specifying column name. for e.g.
In Equi-join it is not mandatory to have same name for column to compare of both table
In natural join also the matching rows will return. In natural join column will appear only once in output. Then name of column must be same in both table if we are performing natural join using the clause NATURAL JOIN.

19 Observe the given Table TEACHER and give the output of question (i) and (ii)

TEACHER_CODE	TEACHER_NAME	DOJ
T001	ANAND	2001-01-30
T002	AMIT	2007-09-05
T003	ANKIT	2007-09-20
T004	BALBIR	2010-02-15
T005	JASBIR	2011-01-20
T006	KULBIR	2008-07-11

(i) SELECT TEACHER_NAME,DOJ FROM TEACHER WHERE TEACHER_NAME LIKE '%I%'
(ii) SELECT * FROM TEACHER WHERE DOJ LIKE '%-09-%';

Ans
(i)

TEACHER_NAME	DOJ
AMIT	2007-09-05
ANKIT	2007-09-20
BALBIR	2010-02-15
JASBIR	2011-01-20
KULBIR	2008-07-11

(ii)

TEACHER_CODE	TEACHER_NAME	DOJ
T002	AMIT	2007-09-05
T003	ANKIT	2007-09-20

20 Which SQL function is used to get the average value of any column?

Ans. AVG()

21 What is the difference between COUNT() and COUNT(*) function

Ans. COUNT() function will count number of values in any column excluding the NULLs
COUNT(*) will count number of rows in query output including NULLs

22 What is the full form of SQL?

Ans. Structured Query Language

23	Query to delete all record of table without deleting the table: a. DELETE TABLE TABLE_NAME b. DELETE FROM TABLE_NAME c. DROP TABLE TABLE_NAME d. DELETE TABLE FROM TABLE_NAME
Ans.	b. DELETE FROM TABLE_NAME
24	Identify the wrong statement about UPDATE command a. If WHERE clause is missing all the record in table will be updated b. Only one record can be updated at a time using WHERE clause c. Multiple records can be updated at a time using WHERE clause d. None of the above
Ans.	b. Only one record can be updated at a time using WHERE clause
25	Identify the correct statement(s) to drop a column from table a. DELETE COLUMN COLUMN_NAME b. DROP COLUMN COLUMN_NAME c. ALTER TABLE TABLE_NAME DROP COLUMN COLUMN_NAME d. ALTER TABLE TABLE_NAME DROP COLUMN_NAME
Ans.	c. ALTER TABLE TABLE_NAME DROP COLUMN COLUMN_NAME d. ALTER TABLE TABLE_NAME DROP COLUMN_NAME
26	Suppose a table BOOK contain columns (BNO, BNAME, AUTHOR, PUBLISHER), Raj is assigned a task to see the list of publishers, when he executed the query as: SELECT PUBLISHER FROM BOOK; He noticed that the same publisher name is repeated in query output. What could be possible solution to get publisher name uniquely? Rewrite the following query to fetch unique publisher names from table.
Ans.	Solution is to use DISTINCT clause. Correct Query : SELECT DISTINCT PUBLISHER FROM BOOK;
27	**HOTS** Consider a database table T containing two columns X and Y each of type integer. After the creation of the table, one record (X=1, Y=1) is inserted in the table. Let MX and MY denote the respective maximum values of X and Y among all records in the table at any point in time. Using MX and MY, new records are inserted in the table 128 times with X and Y values being MX+1, 2*MY+1 respectively. It may be noted that each time after the insertion, values of MX and MY change. What will be the output of the following SQL query after the steps mentioned above are carried out? SELECT Y FROM T WHERE X = 7 A. 127 B. 255 C. 129 D. 257
Ans.	**A. 127**
28	Which SQL function is used to find the highest and lowest value of numeric and date type column?
Ans.	MAX() and MIN()
29	What is the default order of sorting using ORDER BY?
Ans.	Ascending
30	What is the difference between CHAR and VARCHAR?
Ans.	CHAR is fixed length data type. For example if the column 'name' if of CHAR(20) then all name will occupy 20 bytes for each name irrespective of actual data. VARCHAR is variable length data type i.e. it will occupy size according the actual length of data

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

TABLE : ACCOUNT

ANO	ANAME	ADDRESS
101	Nirja Singh	Bangalore
102	Rohan Gupta	Chennai
103	Ali Reza	Hyderabad
104	Rishabh Jain	Chennai
105	Simran Kaur	Chandigarh

TABLE: TRANSACT

TRNO	ANO	AMOUNT	TYPE	DOT
T001	101	2500	Withdraw	2017-12-21
T002	103	3000	Deposit	2017-06-01
T003	102	2000	Withdraw	2017-05-12
T004	103	1000	Deposit	2017-10-22
T005	102	12000	Deposit	2017-11-06

(i) To display details of all transactions of TYPE Withdraw from TRANSACT table

(ii) To display ANO and AMOUNT of all Deposit and Withdrawals done in month of 'May' 2017 from table TRANSACT

(iii) To display first date of transaction (DOT) from table TRANSACT for Account having ANO as 102

(iv) To display ANO, ANAME, AMOUNT and DOT of those persons from ACCOUNT and TRANSACT table who have done transaction less than or equal to 3000

(v)
```
SELECT ANO, ANAME FROM ACCOUNT
WHERE ADDRESS NOT IN ('CHENNAI', 'BANGALORE');
```

(vi)
```
SELECT DISTINCT ANO FROM TRANSACT
```

(vii)
```
SELECT ANO, COUNT(*), MIN(AMOUNT) FROM TRANSACT
GROUP BY ANO HAVING COUNT(*)> 1
```

(viii)
```
SELECT COUNT(*), SUM(AMOUNT) FROM TRANSACT
WHERE DOT <= '2017-10-01'
```

Ans.

(i) Select * from TRANSACT where TYPE='Withdraw';

(ii) Select ANO, AMOUNT from TRANSACT where DOT like '%-05-%';

(iii) Select MIN(DOT) from TRANSACT where ANO=102

(iv) Select ANO,T.ANO,ANAME,AMOUNT from ACCOUNT A, TRANSACT T where A.ANO = T.ANO and AMOUNT<=3000;

(v)

ANO	ANAME
103	Ali Reza
105	Simran Kaur

(vi)

ANO
101
103
102

(vii)

ANO	COUNT(*)	MIN(AMOUNT)
102	2	2000
103	2	3000

(viii)

COUNT(*)	SUM(AMOUNT)
2	5000

32 Consider the following tables EMP and SALGRADE, write the query for (i) to (vi) and output for (vii) to (x)

TABLE: EMPLOYEE

ECODE	NAME	DESIG	SGRADE	DOJ	DOB
101	Vikrant	Executive	S03	2003-03-23	1980-01-13
102	Ravi	Head-IT	S02	2010-02-12	1987-07-22
103	John Cena	Receptionist	S03	2009-06-24	1983-02-24
105	Azhar Ansari	GM	S02	2009-08-11	1984-03-03
108	Priyam Sen	CEO	S01	2004-12-29	1982-01-19

TABLE: SALGRADE

SGRADE	SALARY	HRA
S01	56000	18000
S02	32000	12000
S03	24000	8000

(i) To display details of all employee in descending order of their DOJ
(ii) To display NAME AND DESIG of those employees whose sgrade is either 'S02' or 'S03'
(iii) To display NAME, DESIG, SGRADE of those employee who joined in the year 2009
(iv) To display all SGRADE, ANNUAL_SALARY from table SALGRADE [where ANNUAL_SALARY = SALARY*12]
(v) To display number of employee working in each SALGRADE from table EMPLOYEE
(vi) To display NAME, DESIG, SALARY, HRA from tables EMPLOYEE and SALGRADE where SALARY is less than 50000
(vii) Select MIN(DOJ), MAX(DOB) from employee;
(viii) Select SGrade,Salary+HRA from SalGrade where Sgrade='S02'
(ix) Select count(distinct sgrade) from employee
(x) Select sum(salary), avg(salary) from salgrade

Ans

(i)
```
SELECT * FROM EMPLOYEE ORDER BY DOJ DESC
```
(ii)
```
SELECT NAME,DESIG FROM EMPLOYEE WHERE SGRADE IN ('S02','S03')
OR
SELECT NAME,DESIG FROM EMPLOYEE WHERE SGRADE='S02' OR
SGRADE='S03'
```
(iii)
```
SELECT NAME,DESIG,SGRADE FROM EMPLOYEE WHERE DOJ LIKE '2009%'
```
(iv)
```
SELECT SGRADE,SALARY*12 ANNUAL_SALARY FROM SALGRADE
```
(v)
```
SELECT SGRADE,COUNT(*) FROM EMPLOYEE GROUP BY SGRADE
```
(vi)
```
SELECT NAME,DESIG,SALARY,HRA FROM EMPLOYEE E,SALGRADE S WHERE
E.SGRADE=S.SGRADE AND SALARY<=50000
```
(vii)
```
MIN(DOJ)        MAX(DOB)
-----------------------------------
2003-03-23      1987-07-22
```
(viii)
```
SGRADE  SALARY+HRA
--------------------------------
S02          44000
```
(ix)
```
COUNT(*)
---------------
      3
```
(x)
```
SUM(SALARY)     AVG(SALARY)
-----------------------------------------
   112000             37333.33
```

33 Write SQL queries for (i) to (iv) and write outputs for SQL queries (v) to (viii), which are based on the table given below:

Table: TRAINS

TNO	TNAME	START	END
11096	Ahimsa Express	Pune Junction	Ahmedabad Junction
12015	Ajmer Shatabdi	New Delhi	Ajmer Junction
1651	Pune Hbj Special	Pune Junction	Habibganj
13005	Amritsar Mail	Howrah Junction	Amritsar Junction
12002	Bhopal Shatabdi	New Delhi	Habibganj
12417	Prayag Raj Express	Allahabad Junction	New Delhi
14673	Shaheed Express	Jaynagar	Amritsar Junction
12314	Sealdah Rajdhani	New Delhi	Sealdah
12498	Shane Punjab	Amritsar Junction	New Delhi
12451	Shram Shakti Express	Kanpur Central	New Delhi
12030	Swarna Shatabdi	Amritsar Junction	New Delhi

Table: PASSENGERS

PNR	TNO	PNAME	GENDER	AGE	TRAVELDATE
P001	13005	R N AGRAWAL	MALE	45	2018-12-25
P002	12015	P TIWARY	MALE	28	2018-11-10
P003	12015	S TIWARY	FEMALE	22	2018-11-10
P004	12030	S K SAXENA	MALE	42	2018-10-12
P005	12030	S SAXENA	FEMALE	35	2018-10-12
P006	12030	P SAXENA	FEMALE	12	2018-10-12
P007	13005	N S SINGH	MALE	52	2018-05-09
P008	12030	J K SHARMA	MALE	65	2018-05-09
P009	12030	R SHARMA	FEMALE	58	2018-05-09

(i) To display details of all Trains which starts from New Delhi
(ii) To display PNR, PNAME, GENDER and AGE of all passengers whose AGE is below 50
(iii) To display total numbers of MALE and FEMALE passengers
(iv) To display records of all passengers travelling in trains whose TNO is 12015
(v) SELECT MAX(TRAVELDATE),MIN(TRAVELDATE) FROM PASSENGERS WHERE GENDER='FEMALE';
(vi) SELECT END, COUNT(*) FROM TRAINS GROUP BY END HAVING COUNT(*)>1;
(vii) SELECT DISTINCT TRAVELDATE FROM PASSENGERS;
(viii) SELECT TNAME, PNAME FROM TRAINS T, PASSENGERS P WHERE T.TNO=P.TNO AND AGE BETWEEN 50 AND 60

Ans

(i) SELECT * FROM TRAINS WHERE START='NEW DELHI'

(ii) SELECT PNR,PNAME,GENDER,AGE FROM PASSENGER WHERE AGE<50

(iii) SELECT GENDER,COUNT(*) FROM PASSENGERS GROUP BY GENDER

(iv) SELECT * FROM PASSENGERS WHERE TNO=12015

(v)

MAX(TRAVELDATE)	MIN(TRAVELDATE)
2018-11-10	2018-05-09

(vi)

END	COUNT(*)
HABIBGANJ	2
AMRITSAR JUNCTION	2
NEW DELHI	4

(vii)

TRAVELDATE
2018-12-25
2018-11-10
2018-10-12
2018-05-09

(viii)

TNAME	PNAME
AJMER SHATABDI	P TIWARY
AJMER SHATABDI	S TIWARY
AMRITSAR MAIL	R N AGRAWAL
AMRITSAR MAIL	N S SINGH
SWARNA SHATABDI	S K SAXENA
SWARNA SHATABDI	S SAXENA
SWARNA SHATABDI	J K SHARMA
SWARNA SHATABDI	R SHARMA

34 Consider the table SHOPPE and ACCESSORIES, write the query for (i) to (v) and output for (vi) to (x)

Table : SHOPPE

Id	SName	Area
S01	ABC Computronics	CP
S02	All Infotech Media	GK II
S03	Tech Shoppe	CP
S04	Geeks Tecno Soft	Nehru Place
S05	Hitech Tech Store	Nehru Place

Table : ACCESSORIES

No	Name	Price	Id
A01	Mother Board	12000	S01
A02	Hard Disk	5000	S01
A03	Keyboard	500	S02
A04	Mouse	300	S01
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

(i) To display Name and Price of all the Accessories in descending order of their Price
(ii) To display Id and Sname of all the Shoppe location in 'Nehru Place'
(iii) To display Name, Minimum and Maximum Price of each Name from ACCESSORIES table
(iv) To display Name, Price of all Accessories and their respective SName from table SHOPPE and ACCESSORIES where Price is 5000 or more.
(v) To display all details of accessories where name contains word 'Board';
(vi) SELECT DISTINCT NAME FROM ACCESSORIES WHERE PRICE>5000;
(vii) SELECT AREA,COUNT(*) FROM SHOPPE GROUP BY AREA;
(viii) SELECT AVG(PRICE), MAX(PRICE) FROM ACCESSORIES WHERE PRICE>=10000;
(ix) SELECT NAME, PRICE*.05 DISCOUNT FROM ACCESSORIES WHERE ID IN ('S02','S03')
(x) SELECT * FROM SHOPPE S, ACCESSORIES A WHERE S.ID = A.ID AND PRICE>=10000;

Ans

(i) SELECT NAME,PRICE FROM ACCESSORIES ORDER BY PRICE DESC
(ii) SELECT ID,SNAME FROM SHOPPE WHERE AREA='NEHRU PLACE'
(iii) SELECT NAME,MIN(PRICE),MAX(PRICE) FROM ACCESSORIES GROUP BY NAME
(iv) SELECT NAME,PRICE,SNAME FROM SHOPPE S, ACCESSORIES A WHERE S.ID=A.ID AND PRICE>=5000
(v) SELECT * FROM ACCESSORIES WHERE NAME LIKE '%BOARD%'

(vi)

```
NAME
-----------
Mother Board
LCD
```

(vii)

```
AREA          COUNT(*)
------------------------------
CP                 2
GK II              1
Nehru Place        2
```

(viii)

```
AVG(PRICE)     MAX(PRICE)
-------------------------------------
   12500            13000
```

(ix)

```
NAME            DISCOUNT
---------------------------------
Keyboard          25
Mother Board      650
Keyboard          20
Hard Disk         225
```

(x)

```
ID  SNAME                AREA        NO   NAME          PRICE    ID
-------------------------------------------------------------------------------------------
S01 ABC Computronics     CP          A01  Mother board  12000    S01
S02 All Infotech media   GK II       A05  Mother board  13000    S02
```

35 **a) In a database there are two tables : Write MYSQL queries for (i) to (iii)**

Table : Item

ICode	IName	Price	Color	VCode
S001	Mobile Phones	30000	Silver	P01
S002	Refrigerator	20000	Cherry	P02
S003	TV	45000	Black	P03
S004	Washing Machine	12000	White	P04
S005	Air Conditioner	50000	White	P05

Table : Vendor

VCode	VName
P01	Rahul
P02	Mukesh
P03	Rohan
P04	Kapil

(i) To display ICode, IName and VName of all the vendors, who manufacture “Refrigerator”.
(ii) To display IName, ICode, VName and price of all the products whose price >=23000
(iii) To display Vname and IName manufactured by vendor whose code is “P04”.

Ans

(i) Select ICode, IName,VName from Item I,Vendor V where I.Vcode=V.VCode and IName='Refrigerator'

(ii) Select IName, ICode,VName from Item I,Vendor V where I.Vcode=V.VCode and Price>=23000

(iii) Select VName,IName from Item I,Vendor V where I.Vcode=V.VCode and I.VCode='P04'

b) What will be the output of the following-

1. Select Round(1449.58,-2);
2. Select Round(7.5789,3);
3. Select Substr(“ Hello Rahul”,3,8);
4. Select Dayofmonth(“2020-10-24”);

IP ONLY

And

1. 1400
2. 7.579
3. elloh Rah
4. 24

36 In a database there are two tables : Write MYSQL queries for (i) to (vi)

Table : Doctors

DocID	DocName	Department	NoofOpdDays
101	J K Mishra	Ortho	3
102	Mahesh tripathi	ENT	4
103	Ravi Kumar	Neuro	5
104	Mukesh Jain	Physio	3

Table : Patients

PatNo	PatName	Department	DocId
1	Payal	ENT	102
2	Naveen	Ortho	101
3	Rakesh	Neuro	103
4	Atul	Physio	104

(i) To display PatNo, PatName and corresponding DocName for each patient.
(ii) To display the list of all doctors whose NoofOpdDays are more than 3
(iii) To display DocName, Department,PatName and DocId from both the tables where DocID is either 101 or 103
(iv) To display total no of different departments from Patients table.

Ans.

(i) select PatNo,PatName,DocName from Doctors D,Patients P where D.DocID = P.DocID

(ii) select * from Doctors where NoofOpdDays>3

(iii) Select DocID,DocName,Department,PatName from Doctor D, Patient P where D.DocId = P.DocId and DocId in (101,103)

(iv) select count(distinct Department) from Patient

37 Given the Table "BANK" with records, Give the output of given queries –

NAME
SACHIN
RAMESH
DINESH
VIKAASH
RAJU
AMRITESH

i. Select * from BANK where Name Like '%ES%';

ii. Select * from BANK where Name Like '_ _ _ _SH'

Ans

i. RAMESH
DINESH
AMRITESH

ii. RAMESH
DINESH

38 Rajesh a database developer at StoreIndia wants to search the record of those employees whose name starts from 'R' and they have not allotted any project, for this he has written the following query-

Select * from Employee where Name = 'R%' and Project=Null;

But the query is not producing the correct output. Rewrite the query after correcting the errors

Ans Select * from Employee where Name like 'R%' and Project is null

39 Considering the Visitor table data, write the query for (i) to (iv) and output for (v) to (viii)

VisitorID	VisitorName	Gender	ComingFrom	AmountPaid
1	Suman	F	Kanpur	2500
2	Indu	F	Lucknow	3000
3	Rachana	F	Haryana	2000
4	Vikram	M	Kanpur	4000
5	Rajesh	M	Kanpur	3000
6	Suresh	M	Allahabad	3600
7	Dinesh	M	Lucknow	
8	Shikha	F	Varanasi	5000

(i) Write a query to display VisitorName, Coming From details of Female Visitors with Amount Paid more than 3000

(ii) Write a query to display all coming from location uniquely

(iii) Write a query to insert the following values-
7, 'Shilpa','F','Lucknow',3000

(iv) Write a query to display all details of visitors in order of their AmountPaid from highest to lowest

(v) Select VisitorName from Visitor where Gender='M';

(vi) Select AmountPaid+200 from Visitor where VisitorID=6;

(vii) Select Sum(AmountPaid) from Visitor where comingFrom='Kanpur';

(viii) Select Count(VisitorName) from Visitor where AmountPaid is NULL;

Ans.

(i) Select VisitorName,ComingFrom from Visitor where Gender='F' and AmountPaid>3000
(ii) Select distinct ComingFrom from Visitor
(iii) insert into visitor values(7,'Shilpa','F','Lucknow',3000)
(iv) Select * from visitor order by AmountPaid desc

(v) VisitorName

Vikram
Rajesh
Suresh
Dinesh

(vi) AmountPaid+200

3800

(vii) Sum(AmountPaid)

9500

(viii) Count(VisitorName)

1

40 Write a MySQL query to create the given table (MEMBER)

Column name	Datatype	Size
ID	Char	6
Name	Varchar	30
Fee	Int	10
DOJ	Date	

Ans. create table member(id char(6),name varchar(30),fee int(10),doj date)

41 What is the Difference between ALTER Table command and UPDATE command?

Ans. ALTER is DDL command and is used for modifying the schema of table like adding new column, modifying column definition, dropping column. UPDATE is DML command and is used for modifying the existing data of table like changing the mobile number, changing the salary etc.

42 (i) Sanjay was deleting the record of empno=1234, but at the time of execution of command he forgot to add condition empno=1234, what will be the effect of delete command in this case?
(ii) Sameer is executing the query to fetch the records of employee who are getting salary between 4000 to 8000, he executed the query as -

Select * from employee where salary between 4000 to 8000;

But he is not getting the correct output, Rewrite the correct query.

Ans.
(i) If where clause is missing with DELETE then it will delete all the record of table.
(ii) Select * from employee where salary between 40000 and 80000

43 Write MYSQL command to see the list of tables in current database

Ans. Show tables

44 Sunil decides to delete a PhoneNo column from a MySQL Table (student) after insert the data into the table. Write the command to delete that particular column in student table.

Ans. ALTER TABLE student drop PhoneNo

45 A table Employee contains 5 Rows and 4 Columns and another table PROJECT contains 5 Rows and 3 Columns. How many rows and columns will be there if we obtain Cartesian product of these two tables?

Ans. Rows = 5 x 5 = 25
Columns = 4 + 3 = 7

46 Ranjeet created a table named student, He wants to see those students whose name ending with p. He wrote a query- **SELECT * FROM student WHERE name="p%";**
But the query is not producing the desired output, Help Ranjeet to run the query by removing the errors from the query and rewriting it.

Ans — SELECT * FROM student WHERE name LIE ”p%”;

47 — Consider the following EMPLOYEE table write MYSQL command for (i) to (iv) and Outputs for (v) to (viii)

EMPNO	ENAME	DEPT	SALARY	COMM
1	ANKIT	HR	20000	1200
2	SUJEET	ACCOUNTS	24000	
3	VIJAY	HR	28000	2000
4	NITIN	SALES	18000	3000
5	VIKRAM	SALES	22000	1700

(i) To display the name of employees starting from ‘V’ in ascending order of their salary
(ii) To display the details of all SALES dept employee who are earning salary more than 20000
(iii) To count distinct department from the table
(iv) Change the salary of NITIN from 18000 to 20000
(v) To insert a new row in the table Employee
‘6’, ‘SUMIT’,’HR’, 40000,2000
(vi) Select AVG(COMM) from Employee
(vii) Select ENAME,DEPT from Employee where Dept in(‘HR’,’ACCOUNTS’)
(viii) Select ENAME, SALARY+100 NEWSAL from Employee

Ans.
(i) select ename from employee where ename like 'V%' order by salary;
(ii) Select * from employee where dept='Sales' and salary>20000;
(iii) select count(distinct dept) from employee;
(iv) update employee set salary=20000 where ename='NITIN';
(v) insert into employee values(6,'SUMIT','HR',40000,2000)
(vi) 1980 (including record inserted in (v))
(vii)

ENAME	DEPT
ANKIT	HR
SUJEET	ACCOUNTS
VIJAY	HR

(viii)

ENAME	NEWSAL
ANKIT	20100
SUJEET	24100
VIJAY	28100
NITIN	20100
VIKRAM	22100
SUMIT	40100

48 — Write MYSQL command to create the table ENQUIRY including its constraints
Table : ENQUIRY

Name of column	Type	Size	Constraints
visitorID	Decimal	4	Primary key
visitorName	Varchar	20	
visitorMobile	Char	10	Not null
visitorAddress	Varchar	40	

Ans. — create table ENQUIRY(visitorID decimal(4) primary key, visitorName varchar(20) visitorMobile char(10) not null, visitorAddress varchar(40))

49 — In a database there are two tables :
Table : Doctor

DocID	DocName	Specialist
D001	Vimal Jha	Cardio
D002	Sunil Bawra	Ortho
D003	Mukul Barman	Surgeon
D004	Nitesh Solanki	Skin

Table : Patient

PatID	PatName	DateAdm	DocID
P001	Kapil	2013-10-10	D002
P002	Susheel	2013-09-01	D001
P003	Wasim	2013-10-15	D002
P004	Sanjay	2013-10-12	D003
P005	Jai	2013-10-17	D003

Write the MySQL queries for the following :

(i) To display PatID, PatName, and corresponding DocName of 'Cardio' and 'Ortho' patient

(ii) To display DocName, PatName of those patient who are admitted before 15-Oct-2013

Ans.

(i) select PatID, PatName,DocName from Doctor D, Patient P where D.DocID = P.DocID and specialist in ('Cardio','Orto');

(ii) select DocName,PatName from Doctor D, patient P where D.DocID =P.DocID and DateAdm<'2013-10-15'

50 What will be output of following Mysql Queries –

(i) Select Round(55.698,2)

(ii) Select mid('examination',4,4)

(iii) Select Round(4562.778,-2)

(iv) Select length(trim(' exam '))

IP ONLY

Ans.

(i) 55.70

(ii) mina

(iii) 4600

(iv) 4

51 1. Write Query for the following requirements – (STUDENT)

Id	NAME	STIPEND	SUBJECT	AVERAGE	DIV
1	KARAN	400	PHYSICS	68	1
2	DIVAKAR	450	COMP SC	68	1
3	DIVYA	300	CHEMISTRY	62	2
4	ARUN	350	PHYSICS	63	1
5	SABINA	500	MATHS	70	1
6	JOHN	400	CHEMISTRY	55	2
7	ROBERT	250	PHYSICS	64	1
8	RUBINA	450	MATHS	NULL	NULL
9	VIKAS	500	COMP SC	62	1
10	MOHAN	300	MATHS	57	2

GUIDE

SUBJECT	ADVISOR
PHYSICS	ALOK
COMP SC	RAJAN
CHEMISTRY	MANJU
MATHS	SMITA
HISTORY	KISHORE

1. TO DISPLAY THE NAME OF STUDENT , SUBJECT AND ADVISOR NAME
2. TO DISPLAY THE STUDENT NAME AND ADVISOR ALL THE STUDENTS WHO ARE OFFERING EITHER PHYSICS OR CHEMISTRY

Ans.	1. Select Name,Subject,Advisor from Student S,Guide G where S.subject = G.subject; 2. Select Name,Advisor from Student S,Guide G where S.subject = G.subject and S.subject in ('Physics','Chemistry')
52	**DIFFERENCE BETWEEN** 1. HAVING AND WHERE 2. % AND _ 3. CHAR AND VARCHAR
Ans.	(1) **HAVING –** this clause is used with GROUP BY to filter the group of records. We can use aggregate functions with HAVING. **WHERE** – this clause is used to apply condition on all the rows of table. We cannot use aggregate functions with WHERE. (2) % is a wildcard character used with LIKE and it is used for substituting multiple characters while matching the pattern. Matching text can be of any length _ (underscore) is also a wildcard character used with LIKE but it substitute only single character at given position while matching the pattern. Length will be fixed. (3) Refer to Answer no. 30

53	**OUTPUT** –
	a. Select Substring('mysql application',3,3)
	b. Select instr('mysql application','p');
	c. Select round(7756.452,1);
	d. Select round(59999.99,-2);
	e. Select right('mysql application',3);
	IP ONLY

Ans.	a. sql b. 8 c. 7756.5 d. 60000 e. Ion