SAINIK SCHOOL GOPALGANJ
SUB: COMPUTER SCIENCE
CLASS - XII
ASSIGNMENT

Lesson: 12: SQL Commands

A.   (Q1 to Q20) There are four options against each question. Choose the option which you   consider the most appropriate as your answer.

1.   The statement in SQL which allows changing the definition of a table is
       (A) Alter.
       (B) Update.
       (C) Create.
       (D) select.
2.   The statement in SQL which allows changing the definition of a table is
       (A) Alter.
       (B) Update.
       (C) Create.
       (D) select.
3.   Key to represent relationship between tables is called
        (A) Primary key
        (B) Secondary Key
        (C) Foreign Key
        (D) None of these
4.   _____ produces the relation that has attributes of R1 and R2
       (A) Cartesian product
       (B) Difference
       (C) Intersection
       (D) Product
5.   It is better to use files than a DBMS when there are
       (A) Stringent real-time requirements.
       (B) Multiple users wish to access the data.
       (C) Complex relationships among data.
       (D) All of the above.
6.   The conceptual model is
       (A) dependent on hardware.
       (B) dependent on software.
       (C) dependent on both hardware and software .
       (D) independent of both hardware and software.
7.   What is a relationship called when it is maintained between two entities?
       (A) Unary
       (B) Binary

(C) Ternary

(D) Quaternary

8. Which of the following operation is used if we are interested in only certain columns of a table?

(A) PROJECTION

(B) SELECTION

(C) UNION

(D) JOIN

9 Which of the following is a valid SQL type?

(A) CHARACTER

(B) NUMERIC

(C) FLOAT

(D) All of the above

10. The RDBMS terminology for a row is

(A) tuple.

(B) relation.

(C) attribute.

(D) degree.

11. Create table is

a) DDL Command

b) DML command

c) DCL Command

d) None of these

12. Which operator performs range seraching?

a) Like

b) Between

c) IN

d) None of these

13. Which operator test column for absence of data?

a) is NULL

b) =NULL

c) EXISTS

d) None of these

14. Which function gives cardinality?

a) count(column_name)

b) count(*)

c) min(column_name)

d) None of these

15. Which one is not a DDL COMMAND?

a) Create

b) Alter

c) Drop

d) None of these

16. Which one is not a DML COMMAND?
   a) Update
   b) Select
   c) Delete
   d) None of these

17. Which one is a DML COMMAND?
   a) Update
   b) Create
   c) Alter
   d) None of these

18. Which one is correct SQL command?
   a) select name and address from admin;
   b) select name, address from admin;
   c) select name, address where name= "abc";
   d) None of these

19. Which one is correct SQL command from selecting the name of employees from emp table where salary is 10000 and 20000?
   a) select name from emp where salary =10000 and 20000;
   b) select name from emp where salary between10000 and 20000;
   c) select name from emp where salary IN(10000,20000);
   d) None of these

20. Select the right statement for inserting record in student table
   a) INSERT student values(.................)
   b) INSERT values(................)
   c) INSERT INTO student values (...................)
   d) INSERT values INTO student (..................)

   (C) Unique key   (D) Foreign key

B.   Short Answer Questions:

   a) What are DDL and DML?

   b) Write an SQL command to increase the rating of all customers by 10% from customer table.

   c) Write an SQL command to delete the record of roll no 1 from student table?

d) Write an SQL command to display the number of records from student table.

e) Write an SQL command to display the list of students from student table in ascending order to their name.

C. **Long Answer Questions:**

1. Consider the following tables CARDEN and CUSTOMER and answer (b) and (c) parts .

Table: CARDEN

Ccode	CarName	Make	Color	Capacity	Charges
501	A-Star	Suzuki	RED	3	14
503	Indigo	Tata	SILVER	3	12
502	Innova	Tovota	WHITE	7	15
509	SX4	Suzuki	SILVER	4	14
510	C Class	Mercedes	RED	4	35

Table: CUSTOMER

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

(b) Write SQL commands for the following statements:
 (i) To display the names of all silver colored Cars.
(ii) To display name of car, make and capacity of cars in descending order of their sitting capacity.
(iii) To display name of car ,color, cname with their matching ccode
(iv) To display the customer name and the corresponding name of the cars hired by them.

(c) Give the output of the following SOL queries:
(i) SELECT COUNT (DISTINCT Make) FROM CARDEN;
(ii) SELECT MAX (Charges), MIN (Charges) FROM CARDEN;
(iii) SELECT COUNT (*), Make FROM CARDEN;
(iv) SELECT CarName FROM CARDEN WHE~ Capacity = 4;

2. Study the following tables EMPLOYEE and SALARY and write SQL commands for the question (i) to (iv) and give output for SQL queries (v) to (viii)

Relation: Employee

ID	NAME	DOJ	DEPT	SEX	QUALF
101	Siddharth	12/01/02	Sales	M	MBA
104	Raghav	8/05/88	Finance	M	CA
107	Naman	14/05/88	Research	M	MTECH
114	Nupur	1/02/03	Sales	F	MBA
109	Janvi	18/7/04	Finance	F	ICWA
105	Rama	14/4/07	Research	M	BTECH
117	Jace	27/6/87	Sales	F	MTECH
111	Binoy	12/1/90	Finance	M	CA
130	Samuel	7/3/99	Sales	M	MBA
187	Ragini	12/12/02	Research	F	BTECH

Relation: SALARY

ID	SALARY	ALLOWANCE	COMM_PERC
101	15240	5400	3
104	23000	1452	4
107	14870	2451	3
114	21000	3451	14
109	24500	1452	10
105	17000	1250	2
117	12450	1400	3
111	13541	3652	9

i. (i) Display the name of all CA's who are working in sales department.
ii. (ii) Display the number of employee in finance department.
iii. (iii) Increase the salary of all female employee by 2000.
iv. (iv) Display the average salary given to the employee in each department (ID).
v.
vi. (v) SELECT DEPT, COUNT(*) FROM EMPLOYEE GROUP BY DEPT
vii. (vi) SELECT MIN(SALARY+ ALLOWANCE) FROM SALARY
viii. (vii) SELECT DISTINCT QUALF FROM Employee
(viii) SELECT NAME FROM EMPLOYEE WHERE YEAR(DOJ)<2002

3. Consider the following tables Consignor and Consignee. Write SQL commands for the statements (i) to (iv) and give outputs for SQL queries (v) to (viii).

TABLE : CONSIGNOR

CnorID	CnorName	CnorAddress	City
ND01	R Singhal	24, ABC Enclave	New Delhi
ND02	Amit Kumar	123, Palm Avenue	New Delhi
MU15	R Kohli	5/A, South Street	Mumbai
MU50	S Kaur	27-K, Westend	Mumbai

TABLE : CONSIGNEE

CneeID	CnorID	CneeName	CneeAddress	CneeCity
MU05	ND01	Rahul Kishore	5, Park Avenue	Mumbai
ND08	ND02	P Dhingra	16/J, Moore Enclave	New Delhi
KO19	MU15	A P Roy	2A, Central Avenue	Kolkata
MU32	ND02	S Mittal	P245, AB Colony	Mumbai
ND48	MU50	B P Jain	13, Block D, A Vihar	New Delhi

(i) To display the names of all Consignors from Mumbai.'
(ii) To display the CneeID, CnorName, CnorAddress, CneeName, CneeAddress for every Consignee.
(iii) To display consignee details in ascending order of CneeName.
(iv) To display number of consignors from each city,

(v) SELECT DISTINCT City FROM CONSIGNEE;

(vi) SELECT A.CnorName, B.CneeName
FROM Consignor A, Consignee B
WHERE A.CnorID = B.CnorID AND B.CneeCity = 'Mumbai';

(vii) SELECT CneeName, CneeAddress FROM Consignee
WHERE CneeCity NOT IN ('Mumbai', 'Kolkata');

(viii) SELECT CneeID, CneeName
     FROM Consignee
     WHERE CnorID='MU15' OR CnorID='ND01';

4. Consider the following EMPLOYEE tables. Write SQL queries for (i) to (vi) and find outputs for SQL queries (vii) to (x).

Table : EMPLOYEE

ENO	NAME	DOJ	DOB	GENDER	DCODE
1001	George K	2013-09-02	1991-09-01	MALE	D01
1002	RymaSen	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

(i) To display Eno, Name, Gender from the table EMPLOYEE in ascending order of Eno.
(ii) To display the Name of all the MALE employees from the table EMPLOYEE.
(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'.
(iv) To count and display FEMALE employees who have joined after '1986-01-01'.
(v) To display the details of those employees from employee table whose date of Joining is in the year 2002
(vi) To count and display the unique DCODE from the table employees

(vii) SELECT COUNT(*)FROM EMPLOYEE WHERE GENDER LIKE ' FEMALE';
(viii) SELECT DISTINCT DCODE FROM EMPLOYEE;
(ix) SELECT NAME,DOJ FROM EMPLOYEE ENO<1003;
(x) SELECT MAX(DOJ), MIN(DOB) FROM EMPLOYEE;

5. Write the SQL commands for (i) to (iv) on the basis of the table **HOSPITAL**.

TABLE: HOSPITAL

No.	Name	Age	Department	Dateofadm	Charges	Sex
1	Sandeep	65	Surgery	20/02/98	300	M
2	Ravina	24	Orthopedic	20/01/98	200	F
3	Karan	45	Orthopedic	19/02/98	200	M
4	Tarun	12	Surgery	01/01/98	300	M
5	Zubin	36	ENT	20/01/98	250	M
6	Ketaki	16	ENT	24/02/98	300	F
7	Ankita	29	Cardiology	20/02/98	800	F
8	Zareen	45	Gynecology	22/02/98	300	F
9	Kush	19	Cardiology	22/02/98	800	M
10	Shailya	31	Nuclear Medicine	19/02/98	400	M

I. To show all information about the patients of cardiology department.

II. To list the name of female patients who are in orthopedic department.

III. To list names of all patients with their date of admission in ascending order.

IV. The display Patient's Name, charges, age for male patients only.

Write output for the following SQL commands for Hospital Table.

I. Select COUNT (DISTINCT Charges) from HOSPITAL;

II. Select MIN (Age) from HOSPITAL where Sex = 'M';

III. Select SUM(Charges) from HOSPITAL where Sex = 'F';

IV. Select AVG (Charges) from HOSPITAL where age>36;