Structured Query Language

Question 1: Explain the concept UNION between two tables, with the help of appropriate example. **Delhi 2014**

Answer: The UNION operator is used to combine the result-set of two or more tables, without returning any duplicate rows,
e.g.

Question 2: Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii), which are based on the tables.**All India 2017**

(i) To display all details from the table MEMBER in descending order of ISSUEDATE.
(ii) To display the DCODE and DTITLE of all Folk Type DVDs from the table DVD.
(iii) To display the DTYPE and number of DVDs in each DTYPE from the table DVD.
(iv) To display all NAME and ISSUEDATE of those members from the table MEMBER who have DVDs issued
(i.e., ISSUEDATE) in the year 2017.

(v) SELECT MIN (ISSUEDATE) FROM MEMBER; (vi) SELECT DISTINCT DTYPE FRO M DVD; (vii) SELECT D.DCODE, NAME, DTITLE " FROM DVD D, MEMBER M WHERE D.DC0DE=M.DCODE; (viii) SELECT DTITLE FROM DVD WHERE DTYPE NOT IN ("Fol k", "Classical");

Answer:

(i) SELECT * FROM MEMBER ORDER BY ISSUEDATE DESC; (ii) SELECT DCODE, DTI TLE FROM DVD WHERE DTYPE = "Folk"; (iii) SELECT DTYPE, COUNT (*) FROM DV D GROUP BY DTYPE; (iv) SELECT NAME, ISSUEDATE FROM MEMBER WHERE ISSUE DATE LIKE '2017%';

Question 3:
Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii), which are based on the tables. **All India 2016**

NOTE
• KM is Kilometres travelled

• NOP is number of passengers travelled in vehicle.
(i) To display CNO, CNAME, TRAVELDATE from the table TRAVEL in descending order of CNO.
(ii) To display the CNAME of all the customers from the table TRAVEL who are traveling by vehicle with code V01 or V02.
(iii) To display the CNO and CNAME of those customers from the table TRAVEL who travelled between '2015-12-31' and '2015-05-01'.
(iv) To display all the details from table TRAVEL for the customers, who have travel distance more than 120 KM in ascending order of NOP.

(v) SELECT COUNT(*), VCODE FROM TRAVEL GROUP BY VCODE HAVING C0UNT(*) >1; (vi) SELECT DISTINCT VCODE FROM TRAVEL; (vii) SELECT VCODE,CNAME,VE HICLETYPE FROM TRAVEL A, VEHICLE B WHERE A.VC0DE=B.VCODE AND KM<90; (viii) SELECT CNAME, KM*PERKM FROM TRAVEL A, VEHICLE B WHERE A.VC0DE= B.VCODE AND A.VC0DE="V05";

Answer:

(i) SELECT CNO, CNAME, TRAVELDATE FROM TRAVEL ORDER BY CNO DESC; (ii) S ELECT CNAME FROM TRAVEL WHERE VCODE = "VO1" OR VC0DE="VO2"; (iii) SEL ECT CNO, CNAME FROM TRAVEL WHERE TRAVELDATE BETWEEN "2015-12-31" A ND '2015-05-01 '; (iv) SELECT * FROM TRAVEL WHERE KM>120 ORDER BY NOP

Question 4: Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii), which are based on the tables. **Delhi 2016**

NOTE

• PERKM is Freight Charges per kilometre • VTYPE is Vehicle Type

NOTE

• NO is Traveller Number
• KM is Kilometre travelled
• NOP is number of travellers travelled in vehicle
• TDATE is Travel Date
(i) To display NO, NAME, TDATE from the table TRAVEL in descending order of NO.
(ii) To display the NAME of all the travellers from the table TRAVEL who are travelling by vehicle with code 101 or 102. '
(iii) To display the NO and NAME of those travellers from the table TRAVEL who travelled between '2015-12-31' and '2015-04-01'.
(iv) To display all the details from table TRAVEL for the travellers, who have travelled distance more than 100 KM in ascending order of NOP.

(v) SELECT COUNT(*), CODE FROM TRAVEL GROUP BY CODE HAVING C0UNT(*) > 1; (vi) SELECT DISTINCT CODE FROM TRAVEL; (vii) SELECT CODE,NAME,VTYPE FR OM TRAVEL A, VEHICLE B WHERE A.C0DE=B.C0DE AND KM<90; (viii) SELECT NA ME,KM*PERKM FROM TRAVEL A, VEHICLE B WHERE A.C0DE=B.C0DE AND A.C0DE ="105" ;

Answer:

(i) SELECT NO, NAME, TDATE FROM TRAVEL ORDER BY NO DESC; (ii) SELECT NA ME FROM TRAVEL WHERE CODE = 101 OR CODE = 102; (iii) SELECT NO. NAME FR OM TRAVEL WHERE TDATE BETWEEN "2015-12-31" AND "2015-04-01" ; (iv) SELE CT * FROM TRAVEL WHERE KM > 100 ORDER BY NOP;

Question 5:
Consider the following **DEPT** and **WORKER** tables.
Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii): **Delhi**

2015
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.
(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'.

(v) SELECT COUNT(*), DCODE FROM WORKER GROUP BY DCODE HAVING C0UNT(*)>1; (vi) SELECT DISTINCT DEPARTMENT FROM DEPT; (vii) SELECT NAME, DEPA RTMENT, CITY FROM WORKER W, DEPT D WHERE W.DC0DE=D.DCODE AND WNO <1003; (viii) SELECT MAX (DOJ), MIN(DOB) FROM WORKER;

Answer:

(i) SELECT WNO, NAME, GENDER FROM WORKER ORDER BY WNO DESC; (ii) SELE CT NAME FROM WORKER WHERE GENDER = "FEMALE"; (iii) SELECT WNO, NAME FROM WORKER WHERE DOB BETWEEN "1987-01-01" AND "1991-12-01"; (iv) SEL ECT COUNT(*) FROM WORKER WHERE GENDER = "MALE" AND DOJ > "1986-01-0 1";

Question 6: Consider the following **DEPT** and **EMPLOYEE** tables.
Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii). **All**

India 2015
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.
(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) SELECT COUNT (*), DC0DE FROM EMPLOYEE GROUP BY DCODE HAVING C0UN T(*)>1; (vi) SELECT DISTINCT DEPARTMENT FROM DEPT; (vii) SELECT NAME, DE PARTMENT FROM EMPLOYEE E.DEPT D WHERE E.DCODE = D.DCODE AND ENO<1 003; (viii) SELECT MAX(DOJ),MIN(DOB)FROM EMPLOYEE;

Answer:

(i) SELECT ENO, NAME, GENDER FROM EMPLOYEE ORDER BY ENO; (ii) SELECT NA ME FROM EMPLOYEE WHERE GENDER = "MALE"; (iii) SELECT ENO, NAME FROM E MPLOYEE WHERE DOB BETWEEN "1987-01-01" AND "1991-12-01"; (iv) SELECT C OUNT!*) FROM EMPLOYEE WHERE GENDER = "FEMALE" AND DOJ >"1986-01-01" ;

Question 7:
Consider the following tables **SCHOOL** and **ADMIN** and answer (a) and (b) parts of

this question : **All India 2014 c**
(a) Write SQL statements for the following:
(i) To display TEACHERNAME, PERIODS of all teachers whose periods are more than 25.
(ii) To display all the information from the table SCHOOL in descending order of experience.
(iii) To display DESIGNATION without duplicate entries from the table ADMIN.
(iv) To display TEACHERNAME, CODE and corresponding DESIGNATION from tables SCHOOL and ADMIN of Male teachers.
(b) Give the output of the following SQL queries :

(i) SELECT DESIGNATION, COUNT (*) FROM ADMIN GROUP BY DESIGNATION HAVI NG COUNT (*)<2; (ii) SELECT MAX (EXPERIENCE) FROM SCHOOL; (iii) SELECT TE ACHERNAME FROM SCHOOL WHERE EXPERIENCE > 12 ORDER BY TEACHERNAM E; (iv) SELECT COUNT (*), GENDER FROM ADMIN GROUP BY GENDER;

Answer:

(a) (i) SELECT TEACHERNAME, PERIODS FROM SCHOOL WHERE PERI0DS>25; (ii) SELECT *FROM SCHOOL ORDER BY EXPERIENCE DESC; (iii) SELECT DISTINCT DESI GNATION FROM ADMIN; (iv) SELECT TEACHERNAME, CODE, DESIGNATION FROM SCHOOL S, ADMIN A WHERE S.CODE = A.CODE AND GENDER = "MALE";

Question 8:
Answer the questions (a) and (b) on the basis of the following tables **STORE** and **ITEM**. **Delhi 2014**

(a) Write the SQL queries
(i) to (iv): (i) To display IName and Price of all the Items in ascending order of their Price.
(ii) To display SNo and SName of all Store located in CP.
(iii) To display Minimum and Maximum Price of each IName from the table ITEM.
(iv) To display IName, Price of all items and their respective SName where they are available.
(b) Write the output of the following SQL commands (i) to (iv):

(i) SELECT DISTINCT IName FROM ITEM WHERE Price >=5000; (ii) SELECT Area, COUNT(*) FROM STORE GROUP BY Area; (iii) SELECT COUNT(DISTINCT Area) FRO M STORE; (iv) SELECT IName, Price * 0.05 DISCOUNT FROM ITEM WHERE SNo IN (S02, S03);

Answer:

(a)(i) SELECT IName, Price FROM ITEM ORDER BY Price; (ii) SELECT SNo, SName F ROM STORE WHERE Area = "CP'; (iii) SELECT IName, MIN(Price)"Minimum Price", MAX(Price)"Maximum Price" FROM ITEM GROUP BY IName; (iv) SELECT IName, Pr ice, SName FROM ITEM I, STORE S WHERE I.SNo = S.SNo;

Question 9:
Answer the questions (a) and (b) on the basis of the following tables

SHOPPE and **ACCESSORIES**. **All India 2014**

(a) Write the SQL queries:
(i) To display Name and Price of all the accessories in ascending order of their Price.
(ii) To display Id and SName of all Shoppe located in Nehru Place.
(iii) To display Minimum and Maximum Price of each Name of accessories.
(iv) To display Name, Price of all accessories and their respective SName where they are available.
(b) Write the output of the following SQL commands:

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(i) SELECT DISTINCT Name FROM ACCESSORIES WHERE Price>=5000; (ii) SELEC
T Area, C0UNT(*) FROM SHOPPE GROUP BY Area; (iii) SELECT C0UNT(DISTINCT Ar
ea) FROM SHOPPE: (iv) SELECT Name, Price*0.05 DISCOUNT FROM ACCESSORIES
WHERE SNo IN (S02.S03);
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Answer:
(a)(i) SELECT Name, Price FROM ACCESSORIES ORDER BY Price ASC;
(ii) SELECT ID, SName FROM SHOPPE WHERE Area = 'Nehru Place';
(iii) SELECT MIN(Price)"Minimum Price", MAX(Price)"Maximum Price", Name FROM ACCESSORIES GROUP BY Name;
(iv) The query for this statement cannot be done because relation column, i.e. foreign key is not present.

Question 10: Write SQL queries for (a) to (f) and write the outputs for the SQL queries
mentioned shown in (i) to (iv) parts on the basis of

tables **PRODUCTS** and **SUPPLIERS**. **All India 2013**
(a) To display the details of all the products in ascending order of product names (i.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

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501 2 502 2 503 1
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(d) To display the price, product name (i.e. PNAME) 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:

(i) SELECT DISTINCT SUPCODE FROM PRODUCTS: (ii) SELECT MAX(PRICE), MIN(PRICE) FROM PRODUCTS; (iii) SELECT PRICE * QTY AMOUNT FROM PRODUCTS WHERE PID = 104; (iv) SELECT PNAME, SNAME FROM PRODUCTS P, SUPPLIERS S WHERE P.SUPCODE - S.SUPCODE AND QTY>100;

Answer:

(a) SELECT * FROM PRODUCTS ORDER BY PNAME; (b) SELECT PNAME, PRICE FROM PRODUCTS WHERE PRICE BETWEEN 10000 AND 15000; (c) SELECT SUPCODE, COUNT(*) 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;