**Computer science project**

**SQL**

**(Structered query language)**

DONE BY –

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CLASS XII-C

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ACKNOWLEDGEMENT

**I would like to express my special thanks to my TEACHER (Mr. Arun Khanna) who gave me this*golden*opportunity to do this wonderful project on the topic (Structure Query Language) which also helped me in enhancing and grasping about a lot more new things. I am really thankful to them. *Secondly*I would also like to thank my TEACHER whose guidance helped me a lot in finalizing this project within the*limited time*frame**.

MR.ARUN KHANNA

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Q 1  Consider the following tables PRODUCT and Client. Write SQL commands for the statement (i) to (iv) and give outputs for SQL queries (v) to (viii)

**Table**: **PRODUCT**

|  |  |  |  |
| --- | --- | --- | --- |
| **P\_ID** | **PRODUCT Name** | **Manufacturer** | **Price** |
| **TP01** | TalcomPowder | LAK | 40 |
| **FW05** | Face Wash | ABC | 45 |
| **BS01** | Bath Soap | ABC | 55 |
| **SH06** | Shampoo | XYZ | 120 |
| **FW12** | Face Wash | XYZ | 95 |

**Table: CLIENT**

|  |  |  |  |
| --- | --- | --- | --- |
| **C\_ID** | **Client Name** | **City** | **P\_ID** |
| **01** | TalcomPowder | Delhi | FW05 |
| **06** | Face Wash | Mumbai | BS01 |
| **12** | Bath Soap | Delhi | SH06 |
| **15** | Shampoo | Delhi | FW12 |
| **16** | Face Wash | Bangalore | TP01 |

**(i)** To display the details of those Clients whose city is Delhi.

**Ans**: Select \* from CLIENT where City=”Delhi”;

**(ii)** To display the details of product whose Price is in the range of 50 to 100(Both values included).

**Ans:** Select \* from PRODUCT where Price >= 50 and price <=100;

**(iii)** To display the ClientName, City from table Client, and PRODUCTName and Price from table PRODUCT, with their corresponding matching P\_ID.

**Ans:** Select A.Client Name, A.City, B.PRODUCT Name, B.Price from PRODUCT B,Client A

where B.PRODUCT.P\_ID=A.Client.P\_ID.;

**(iv)** To increase the Price of all products by 10

**Ans:**Update PRODUCT

Set Price=Price +10

Where Price =Price;

**(v)** Select DISTINCT city from Client.

**Ans:**

|  |
| --- |
| City |
| Delhi |
| Mumbai |
| Bangalore |

**(vi)**SELECT Manufacturer, Max(Price), Min(Price), Count(\*) from PRODUCT group by Manufacturer;

**Ans:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Manufacturer** | **Max(Price)** | **Min(Price)** | **Count(\*)** |
| LAK | 40 | 40 | 1 |
| ABC | 55 | 45 | 2 |
| XYZ | 120 | 95 | 2 |

**(vii)**SELECT ClientName, Manufacturer Name from PRODUCT, Client where Client. Prod ,Id=PRODUCT .P \_Id;

**Ans:**

|  |  |
| --- | --- |
| **ClientName** | **ManufacturerName** |
| Talcom powder | LAK |
| Face Wash | ABC |
| Bath soap | ABC |
| Shampoo | XYZ |
| Face wash | XYZ |

**(viii)**SELECT PRODUCTName, Price \* 4 from PRODUCT.

|  |  |
| --- | --- |
| **ProductName** | **Price\*4** |
| Talcom Powder | 160 |
| Face Wash | 180 |
| Bath Soap | 220 |
| Shampoo | 480 |
| Face Wash | 380 |

Q2  Consider the following tables ITEM and CUSTOMER. Write SQL commands for the statement (i) to (iv) and give outputs for SQL queries (v) to (viii)

**Table:** **ITEM**

|  |  |  |  |
| --- | --- | --- | --- |
| **C\_ID** | **ITEMName** | **Manufacturer** | **Price** |
| **PC01** | Personal Computer | ABC | 35000 |
| **LC05** | Laptop | ABC | 55000 |
| **PC03** | Personal Computer | XYZ | 32000 |
| **PC06** | Personal Computer | COMP | 37000 |
| **LC03** | Laptop | PQR | 57000 |

**Table:** **CUSTOMER**

|  |  |  |  |
| --- | --- | --- | --- |
| **C\_ID** | **CUSTOMERName** | **City** | **P\_ID** |
| **01** | N.Roy | Delhi | LC03 |
| **06** | H.Singh | Mumbai | PC03 |
| **12** | R.Pandey | Delhi | PC06 |
| **15** | C.Sharma | Delhi | LC03 |
| **16** | K.Agarwalh | Banglore | PC01 |

**(i)**To display the details of those customers whose city is Delhi.

Ans: Select \* from CUSTOMER Where City=”Delhi”;

**(ii)**To display the details of ITEM whose Price is in the range of 35000 to 55000 (Both values included).

**Ans:** Select \* from ITEM Where Price>=35000 and Price <=55000;

**(iii)**To display the CUSTOMERName, City from table CUSTOMER, and ITEMName and Price from table ITEM, with their corresponding matching id.

**Ans:** Select B.CUSTOMERName, B.City, A.ITEMName, A.Price from ITEM A,CUSTOMER B

where A.C\_ID=B.P\_ID;

**(iv)** To increase the Price of all ITEMs by 1000 in the table ITEM.

**Ans:** Update ITEM

Set Price=Price+1000

Where Price=Price;

**(v)** Select DISTINCT City from CUSTOMER.

**Ans:**

|  |
| --- |
| **City** |
| Delhi |
| Mumbai |
| Bangalore |

**(vi)** Select ITEMName, MAX(Price), Count(\*) FROM ITEM GROUP BY ITEMName;

**Ans:**

|  |  |  |
| --- | --- | --- |
| **ITEMName** | **Max(Price)** | **Count(\*)** |
| Personal Computer | 37000 | 3 |
| Laptop | 57000 | 2 |

**(vii)** SELECT CUSTOMERName, Manufacturer FROM ITEM, CUSTOMER WHERE ITEM.ITEM\_Id=CUSTOMER.ITEM\_Id;

**Ans:**

|  |  |
| --- | --- |
| **CUSTOMERName** | **Manufacturer Name** |
| N.Roy | PQR |
| H.Singh | XYZ |
| R.Pandey | COMP |
| C.Sharma | PQR |
| K.Agarwal | ABC |

**(viii)** SELECT ITEMName, Price \* 100 FROM ITEM WHERE Manufacturer = ‘ABC’;

**Ans:**

|  |  |
| --- | --- |
| **ITEMName** | **Price\*100** |
| Personal Computer | 3500000 |
| Laptop | 5500000 |

**Q3**Study the following tables FLIGHTS and FARES and write SQL commands for the questions (i) to (iv) and give outputs for SQL quiries (v) to(vi).

**TABLE: FLIGHTS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **FL\_NO** | **STARTING** | **ENDING** | **NO\_ FLGHTS** | **NO\_ STOPS** |
| **IC301** | MUMBAI | DELHI | 8 | 0 |
| **IC799** | BANGALORE | DELHI | 2 | 1 |
| **MC101** | INDORE | MUMBAI | 3 | 0 |
| **IC302** | DELHI | MUMBAI | 8 | 0 |
| **AM812** | KANPUR | BANGLORE | 3 | 1 |
| **IC899** | MUMBAI | KOCHI | 1 | 4 |
| **AM501** | DELHI | TRIVENDRUM | 1 | 5 |
| **MU499** | MUMBAI | MADRAS | 3 | 3 |
| **IC701** | DELHI | AHMEDABAD | 4 | 0 |

**TABLE:FARES**

|  |  |  |  |
| --- | --- | --- | --- |
| **FL\_NO** | **AIRLINES** | **FARE** | **TAX%** |
| **IC701** | INDIAN AIRLINES | 6500 | 10 |
| **MU499** | SAHARA | 9400 | 5 |
| **AM501** | JET AIRWAYS | 13450 | 8 |
| **IC899** | INDIAN AIRLINES | 8300 | 4 |
| **IC302** | INDIAN AIRLINES | 4300 | 10 |
| **IC799** | INDIAN AIRLINES | 1050 | 10 |
| **MC101** | DECCAN AIRLINES | 3500 | 4 |

**(i)**Display FL\_NO and NO\_FLIGHTS from “KANPUR” TO “BANGALORE” from the table FLIGHTS.

**Ans:** Select FL\_NO, NO\_FLIGHTS from FLIGHTS where STARTING=”KANPUR” and ENDING=”BANGALORE”;

**(ii)** Arrange the contents of the table FLIGHTS in the ascending order of FL\_NO.

**Ans:** Select\* from FLIGHTS order by FL\_NO;

**(iii)**  Display the FL\_NO and fare to be paid for the flights from DELHI to MUMBAI using the tables FLIGHTS and FARES, where the fare to paid = FARE+FARE+TAX%/100.

**Ans:** Select FL\_NO, FARE+FARE+(TAX%/100) from FLIGHTS, FARES where STARTING=”DELHI” and ENDING=”MUMBAI”;

**(iv)**  Display the minimum fare “Indian Airlines” is offering from the tables FARES.

**Ans:** Select min(FARE) from FARES Where AIRLINES=”Indian Airlines”;

**v)** Select FL\_NO,NO\_FLIGHTS,AIRLINES from FLIGHTS, FARES Where STARTING = “DELHI” AND FLIGHTS.FL\_NO = FARES.FL\_NO

**Ans:**

|  |  |  |  |
| --- | --- | --- | --- |
| FL\_NO | NO\_FLIGHTS | AIRLINES | FARE |
| IC799 | 2 | Indian Airlines | 1050 |

**(vi)** SELECT count (distinct ENDING) from FLIGHTS.

Ans:

|  |
| --- |
| **ENDING** |
| DELHI |
| MUMBAI |
| BANGLORE |
| KOCHI |
| TRIVENDRUM |
| MADRAS |
| AHMEDABAD |
|  |

Q4 Study the following tables DOCTOR and SALARY and write SQL commands for the questions (i) to (iv) and give outputs for SQL queries (v) to (vi) :

**TABLE:** **DOCTOR**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ID** | **NAME** | **DEPT** | **SEX** | **EXPERIENCE** |
| **101** | Johan | ENT | M | 12 |
| **104** | Smith | ORTHOPEDIC | M | 5 |
| **107** | George | CARDIOLOGY | M | 10 |
| **114** | Lara | SKIN | F | 3 |
| **109** | K George | MEDICINE | F | 9 |
| **105** | Johnson | ORTHOPEDIC | M | 10 |
| **117** | Lucy | ENT | F | 3 |
| **111** | Bill | MEDICINE | F | 12 |
| **130** | Murphy | ORTHOPEDIC | M | 15 |

**TABLE:** **SALARY**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **BASIC** | **ALLOWANCE** | **CONSULTAION** |
| **101** | 12000 | 1000 | 300 |
| **104** | 23000 | 2300 | 500 |
| **107** | 32000 | 4000 | 500 |
| **114** | 12000 | 5200 | 100 |
| **109** | 42000 | 1700 | 200 |
| **105** | 18900 | 1690 | 300 |
| **130** | 21700 | 2600 | 300 |

**(i)** Display NAME of all DOCTORs who are in “MEDICINE” having more than 10 years experience from the Table DOCTOR.

**Ans:** Select NAME from DOCTOR where DEPT=”Medicine” and Experience>10;

**(ii)**Display the average SALARY of all DOCTORs working in “ENT”department using the tables. DOCTORS and SALARY where SALARY =BASIC+ALLOWANCE.

**Ans:** Select avg(BASIC+ALLOWANCE) from DOCTOR,SALARY where DEPT=”Ent” and DOCTOR.ID=SALARY.ID;

**(iii)** Display the minimum ALLOWANCE of female DOCTORs.

**Ans:**Select min(Allowance) from DOCTOR,SALARY where Sex=”F” and DOCTOR.Id=SALARY.Id;

**(iv)**Display the highest consultation fee among all male DOCTORs.

**Ans:** Select max(Consulation) from DOCTOR,SALARY where Sex=”M” and DOCTOR.Id=SALARY.ID;

**(v)**Select count (\*) from DOCTOR where SEX = “F”

**Ans:** 4

**(vi)**Select NAME, DEPT , BASIC from DOCTOR, SALARY Where DEPT = “ENT” AND DOCTOR.ID = SALARY.ID

**Ans:**

|  |  |  |
| --- | --- | --- |
| **Name** | **Dept** | **Basic** |
| Jonah | Ent | 12000 |

Q 5 Consider the following tables EMPLOYEES and EMPSALARY. write SQL commands for the Statements (i) to (iv) and give outputs for SQL quires (v) to (viii).

**TABLE: EMPLOYEES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EMPID** | **FIRSTNAME** | **LASTNAME** | **ADDRESS** | **CITY** |
| **010** | GEORGE | Smith | 83 First Street | Howard |
| **105** | MARY | Jones | 842VineAve | Losantiville |
| **152** | SAM | Tones | 33 Elm st | Paris |
| **215** | SARAH | Ackerman | 440 U.S.110 | Upton |
| **244** | MANILA | Sengupta | 24 FriendsStreet | New Delhi |
| **300** | ROBERT | Samuel | 9 Fifth Cross | Washington |
| **335** | HENRY | Williams | 12 Moore Street | Boston |
| **400** | RACHEL | Lee | 121 Harrison | New York |
| **441** | PETER | Thompson | 11 Red road | Paris |

**TABLE: EMPSALARAY**

|  |  |  |  |
| --- | --- | --- | --- |
| **EMPID** | **SALARY** | **BENEFITS** | **DESIGNATION** |
| **010** | 75000 | 15000 | Manager |
| **105** | 65000 | 15000 | Manager |
| **152** | 80000 | 25000 | Director |
| **215** | 75000 | 12500 | Manager |
| **244** | 50000 | 12000 | Clerk |
| **300** | 45000 | 10000 | Clerk |
| **335** | 40000 | 10000 | Clerk |
| **400** | 32000 | 7500 | Salesman |
| **441** | 28000 | 7500 | Salesman |

**(i)**To display Firstname, Lastname, Address and City of all employees living in Paris from the table EMPLOYEES.

**Ans:**Select Firstname, Lastname, Address, City from Employees where City=”Paris”;

**(ii)** To display the content of EMPLOYEES table in descending order of FIRSTNAME.

**Ans**: Select \* from Employees Order By Firstname Desc;

**(iii)** To display the Firstname, Lastname, and Total SALARY of all managers from the tables, where Total SALARY is calculated as SALARY+Benefits.

**Ans:** Select Firstname,Lastname,SALARY+Benefits from EMPLOYEES, EMPSALARY where Designation=”Manager” and EMPLOYEES.EmpId=EMPSALARY.EmpId;

**(iv)** To display the Maximum SALARY among Managers and Clerks from the table EMPSALARY.

**Ans:** Select Designation, max(SALARY) from EMPSALARY where Designation=”Manager” or Designation=”Clerk”;

**(v)** Select FIRSTNAME,SALARY from EMPLOYEES,EMPSALARY WHERE DESIGNATION =’Salesman’ and EMPOLYEES.EMPID=EMPSALARY.EMPID ;

**Ans:**   

|  |  |
| --- | --- |
| **Firstname** | **SALARY** |
| Rachel | 32000 |
| Peter | 28000 |

**(vi)** Select COUNT (DISTINCT DESIGNATION ) FROM EMPSALARY

**Ans:** 4

**(vii)**Select DESIGNATION , SUM(SALARY) from EMPSALARY group by designation having COUNT(\*)>2;

**Ans:**

|  |  |
| --- | --- |
| **Designation** | **Sum(SALARY)** |
| Manager | 215000 |
| Clerk | 135000 |

**(viii)**Select SUM (BENEFITS) from EMPSALARY where DESIGNATION=’Clerk’;

**Ans:** 32000

Q 6 Consider the following tables WORKERS and DESIG. Write SQL commands for the statements (i) to (iv) and give outputs for SQL queries (v) to (viii).

**TABLE: WORKERS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **W\_ID** | **FIRSTNAME** | **LASTNAME** | **ADDRESS** | **CITY** |
| **102** | Sam | Tones | 33 Elm St. | Paris |
| **105** | Sarah | Ackerman | 44 U.S.110 | NewYork |
| **144** | Manila | Sengup ta | 24 Friends Street | New Delhi |
| **210** | George | Smith | 83 First Street | Howard |
| **255** | Mary | Jones | 842 Vine Ave. | Losantiville |
| **300** | Robert | Samuel | 9 Fifth Cross | Washington |
| **335** | Henry | Williams | 12Moore Street | Boston |
| **403** | Ronny | Lee | 121 Harrison St. | New York |
| **451** | Pat | Thomps on | 11 Red Road | Paris |

**TABLE: DESIG**

|  |  |  |  |
| --- | --- | --- | --- |
| **W\_ID** | **SALARY** | **BENEFITS** | **DESIGNATION** |
| **102** | 75000 | 15000 | Manager |
| **105** | 85000 | 25000 | Director |
| **144** | 70000 | 15000 | Manager |
| **210** | 75000 | 12500 | Manager |
| **255** | 50000 | 12000 | Clerk |
| **300** | 45000 | 10000 | Clerk |
| **335** | 40000 | 10000 | Clerk |
| **400** | 32000 | 7500 | Salesman |
| **451** | 28000 | 7500 | Salesman |

**(i)**To display W\_ID Firstname, address and City of all employees living in New York from the Table WORKERS

**Ans:** Select W\_ID , firstname ,address ,city from workers where city=”New York”;

**(ii)** To display the content of workers table in ascending order of LASTNAME.

**Ans:** Select \* from WORKERS Order By lastname;

**(iii)**To display the FIRSTNAME, LASTNAME and Total SALARY of all Clerks from the tables WORKERS And DESIG, where Total SALARY is calculated as SALARY + benifts.

**Ans:**Select firstname, lastname, SALARY+benefits from WORKERS and DESIG where WORKERS.w\_id=DESIG.w\_id and Designation=”Clerk”;

**(iv)** To display the minimum SALARY among managers and Clerks from the tables DESIG.

**Ans**: Select min(SALARY) from DESIG where designation=”managers” or designation=”clerk”;

**(v)**Select FIRSTNAME, SALARY from WORKERS, DESIG where DESIGINATION = “MANAGER” AND WORKERS.W\_ID = DESIGN.W\_ID

**Ans:** 

|  |  |
| --- | --- |
| **FIRSTNAME** | **SALARY** |
| Sam | 75000 |
| Manila | 70000 |
| George | 75000 |

**(vi)**Select COUNT(DISTINCT DESIGNATION) from DESIGN ;

**Ans:** 4

**(vii)**Select DESIGNATION, SUM(SALARY) from DESIG group by DESIGNATION having COUNT (\*) < 3;

**Ans:**

|  |  |
| --- | --- |
| **Designation** | **Sum(SALARY)** |
| Director | 85000 |
| Salesman | 60000 |

**(viii)**Select SUM(BENIFTS) from DESIG where DESIGINATION =”salesman”;

**Ans:**15000

Q 7Give the following table for database a LIBRARY.

**TABLE : BOOKS**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **BOOK\_ID** | **BOOK\_NAME** | **AUTHONAME** | **PUBLISHER** | **PRICE** | **TYPE** | **QUANTITY** |
| **F0001** | The Tears | William Hopkins | First Publ | 750 | Fiction | 10 |
| **F0002** | Thund erbolts | Anna Roberts | First Publ. | 700 | Fiction | 5 |
| **T0001** | My first C+ + | Brains & Brooke | EPB | 250 | Text | 10 |
| **T0002** | C++ Brain works | A.W.Ros saine | TDH | 325 | Text | 5 |
| **C001** | Fast Cook | Lata Kapoore | EPB | 350 | Cookery | 8 |

**TABLE:ISSUED**

|  |  |
| --- | --- |
| **BOOK\_ID** | **QUANTITY\_ISSUED** |
| **F0001** | 3 |
| **T0001** | 1 |
| **C0001** | 5 |

**Write SQL queries from b to g.**

**(b)**To show Book name, Author name and Price of books of EPB publisher.

**Ans:** Select Book\_name,Author\_name, price from books where Publisher =”EPB”;

**(c)** To list the names of the books of FICTIONS type.

**Ans:** Select Book\_name from books where type=”FICTION”;

**(d)** To display the names and prices of the books in descending order of their price.

**Ans:**Select Book\_name, price from books order by price desc;

**(e)** To increase the price of all books of First Pub.by 50.

**Ans:** update books

set price= price+50

where publishers = “First Publ”;

**(f)**To Display the Book\_ID, Book\_Name and Quantity Issued for all books Which have been issued.

**Ans**:Select Book\_ID, Book\_Name, Quantity\_Issued from BOOKS,ISSUED where Books.BookId=Issued.BookId;

**(g)** To insert a new row in the table Issued having the following data: “F0002”,4

**Ans:** insert into Issued

values(“F0002”,4);

**Q** Give the output of the following queries on the above tables:

**(i)**Select Count(Distinct Publishers) From Books

**Ans:** 3

**(ii)** Select Sum(Price) From Books Where Quantity>5

Ans: 1350.

**(iii)**Select Book\_Name,Author\_Name From Books Where Price<500.

**Ans:**

|  |  |
| --- | --- |
| **Book\_Name** | **Author\_Name** |
| My First C++ | Brian & Brooks |
| C++ Brainworks | A.W.Rossaine |
| Fast Cook | Lata Kapoor. |

**(iv)** Select Count(\*) From Books.

**Ans:** 5

Q 8 Given the following TEACHER relation: Write SQL commands for questions (b) to (g).

**TABLE: TEACHER**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NO** | **NAME** | **DEPARTMENT** | **DATEOFJOINING** | **SALARY** | **SEX** |
| **1** | RAJA | COMPUTER | 21/5/98 | 8000 | M |
| **2** | SANGITA | HISTORY | 21/5/97 | 9000 | F |
| **3** | RITU | MATHS | 29/8/98 | 8000 | F |
| **4** | KUMAR | HISTORY | 13/6/96 | 10000 | M |
| **5** | VENKAT | MATHS | 31/10/99 | 8000 | M |
| **6** | SINDU | HISTORY | 21/5/86 | 14000 | F |
| **7** | ASHWARYA | MATHS | 11/1/98 | 12000 | F |

**(b)**To show all information about the teachers of history department.

**Ans:** Select \*from TEACHER where department=’history’;

**(c)** To list names of female teacher who are in math department.

**Ans:**Select name from TEACHER where sex=’M’ and department= ’MATHS’;

**d)** To list names of all Teacher with their date of joining in ascending order.

**Ans:** Select Name From TEACHER order by dateofjoining;

**(e)** To count the number of teachers with age >23.

**Ans:** Select count(age) from ,TEACHER where age>23;

**(f)** To insert a new row in the TEACHER table with the following data: 9, “raja’, 26,“computer”, {13/5/95 }, 2300, “M”.

**Ans:** Insert into TEACHER

values(9,”raja”,26, ”computer”, {13/05/95},2300,”M”);

Q 9 Write SQL commands for (b) to (g) and write the outputs for (h) on the basis of

**TABLE: HOSPITAL**.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NO** | **NAME** | **AGE** | **DEPARTMENT** | **DATEOFADM** | **CHARGES** | **SEX** |
| **1** | Arpit | 62 | Surgery | 21/1/98 | 300 | M |
| **2** | Zareena | 22 | Ent | 12/12/97 | 250 | F |
| **3** | Kareem | 32 | Arthopedic | 19/2/98 | 200 | M |
| **4** | Arun | 12 | Surgery | 11/1/98 | 300 | M |
| **5** | Zubin | 30 | Ent | 12/1/98 | 250 | M |
| **6** | Karin | 16 | Ent | 24/2/98 | 250 | F |
| **7** | Ankita | 29 | cardiology | 22/2/98 | 800 | F |
| **8** | Zareen | 45 | Gynecology | 22/2/98 | 300 | F |
| **9** | Kush | 19 | Cardiology | 13/1/98 | 800 | M |
| **10** | Shilpa | 23 | Nuclear medicine | 21/2/98 | 400 | F |

**(b)** To Select all the information of patients of all cardiology department.

**Ans:**Select \* from HOSPITAL where DEPARTMENT=”Cardiology”;

**(c)**To list the names of female patients who are in ent department.

**Ans**: Select name from HOSPITAL where Department=”Ent” and Sex=”F”;

**(d)** To list names of all patients with their date of admission in ascending order.

**Ans:** Select name, dateofadm from HOSPITAL order by dateofadm;.

**(e)** To display patients name, charges, age, for only female patients.

**Ans:**Select Name, Charges, age from HOSPITAL where sex=”F”;

**(f)**To count the number of patients with age <30.

**Ans:**Select count(\*) from HOSPITAL where age<30;

**(g)** To insert the new row in the HOSPITAL table with the following data: 11, “aftab”, 24, “surgery”, {25/2/98}, 300, “M”.

**Ans:**Insert into HOSPITAL

values(11, “aftab”, 24, “surgery”, {25/02/98}, 300, “M”);

**Q**  Give the output of the following SQL statements:

**(i)** Select count (distinct charges)from HOSPITAL;

**Ans:** 5

**(ii)** Select min(age) from HOSPITAL where sex = “f’;

**Ans:** 16

**(iii)**Select sum(charges) from HOSPITAL where department = “ent”;

**Ans:** 750

**(iv)** Select avg(charges) from HOSPITAL where date of admission is <{12/02/98};

**Ans:** 380

Q 10 Write SQL commands for (b) to (g) and write the outputs for (h) on the basis of tables INTERIORS and NEWONES.

**TABLE: INTERIORS**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NO** | **ITEM NAME** | **TYPE** | **DATEOFSTOCK** | **PRICE** | **DISCOUNT** |
| **1** | Red rose | DoubleBed | 23/02/02 | 32000 | 15 |
| **2** | Soft touch | Baby cot | 20/01/02 | 9000 | 10 |
| **3** | Jerry’shome | Baby cot | 19/02/02 | 8500 | 10 |
| **4** | Rough wood | Office Table | 01/01/02 | 20000 | 20 |
| **5** | Comfort zone | Double Bed | 12/01/02 | 15000 | 20 |
| **6** | Jerry look | Baby cot | 24/02/02 | 7000 | 19 |
| **7** | Lion king | Office Table | 20/02/02 | 16000 | 20 |
| **8** | Royal tiger | Sofa | 22/02/02 | 30000 | 25 |
| **9** | Park sitting | Sofa | 13/12/01 | 9000 | 15 |
| **10** | Dine paradise | DinningTable | 19/02/02 | 11000 | 15 |

**TABLE**:**NEWONES**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NO** | **ITEMNAME** | **TYPE** | **DATEOFSTOCK** | **PRICE** | **DISCOUNT** |
| **11** | White wood | Doublebed | 23/03/03 | 20000 | 20 |
| **12** | James007 | Sofa | 20/02/03 | 15000 | 15 |
| **13** | Tom look | Baby cot | 21/02/03 | 7000 | 10 |

**(b)** To show all information about the sofas from the INTERIORS table.

**Ans:**Select \* from INTERIORS where type= “sofa”;.

**(d)** To list ITEMNAME and TYPE of those ITEMs, in which DATEOFSTOCK is before 22/01/02 from the INTERIORS table in descending order of ITEMNAME.

**Ans:**Select ITEMNAME, TYPE From INTERIORS Where Dateofstock<{22/01/02} order by ITEMNAME;

**(e)** To display ITEMNAME and DATEOFSTOCK of those ITEMs in which the Discount percentage is more than 15 from INTERIORS.

**Ans:**Select ITEMNAME, Dateofstock from INTERIORS Where Discount\*0.01>15;

**(f)**To count the number of ITEMs whose type is “Double bed”

**Ans:** Select Count(\*) from INTERIORS Where Type=”Double Bed”;

**(g)**To insert new row in the NEWONES table with the following data:14, “True Indian “, “Office Table “, {28/03/03},15000,20.

**Ans:** Insert into NEWONES

values(14,”True Indian”,”Office Table”,”{28/03/03},15000,20);.

**Q** Give the outputs for the following SQL statements.

**(i)** Select COUNT (distinct TYPE) from INTERIORS;

**Ans:** 5

**(ii)** Select AVG(DISCOUNT)from INTERIORS where TYPE =”Baby cot”;

**Ans:** 13

**(iii)** Select SUM(price)from INTERIORS where DATEOFSTOCK<{12/02/02};

**Ans**: 53000