

6 Marks Questions

SQL

1. Write SQL commands for (a) to (j) and write output for (h) on the basis of Teacher relation given below.

No	Name	Age	Department	Date of Join	Salary	Sex
1.	Jigal	34	Computer	10/01/97	12000	M
2.	Sharmila	31	History	24/03/98	20000	F
3.	Sandeep	32	Maths	12/12/96	30000	M
4.	Sangeeta	35	History	01/07/99	40000	F
5.	Rakesh	42	Maths	05/09/97	25000	M
6.	Shyam	50	History	27/02/97	30000	M
7.	Shiv Om	44	Computer	25/02/97	21000	M
8.	Shalakra	33	Maths	31/07/97	20000	F

- a) To show all information about the teacher of history department.
- b) To list the names of female teachers who are in Maths department
- c) To list names of all teachers with their date of joining in ascending order.
- d) To display students name, fee,age for male teacher only
- e) To count the number of teachers with age>23.
- f) To insert a new row in the TEACHER table with the following data:
9,"Raja",26,"Computer",13/05/95,2300,"M".
- g) To show all information about the teachers in this table
- h) Add a new column named "Address".
- i) Arrange the whole table in the alphabetical order to name
- j) Display the age of the teachers whose name starts with 'S,.
- k) Give the output of following statement.
 - (j) Select COUNT(distinct department) from TEACHER.
 - (ii) Select MAX(Age)from Teacher where sex="F"
 - (iii) Select AVG(Salary) from Teacher where Dateofjoin<12/07/96
 - (iv) Select SUM(Salary) from teacher where Dateofjoin<12/07/96

2. **TABLE : EMP**

EMPNO	ENAME	JOB	MGR	HIREDATE	SAL	COMM	DEPTNO
7839	REA	MANAGER	67	12-DEC-98	5000	0	10
1234	PREM	CLERK	87	11-FEB-77	12000	1500	20
6754	SITA	MANAGER	89	12-MAR-99	10000	1000	20
6574	GITA	SALESMAN	98	11-JUN-99	9000	0	30
9876	HONEY	CLERK	65	12-JUN-00	12000	800	20
8976	REEMA	SALESMAN	91	10-SEP-88	6000	100	30

- (a) Display names of employees whose names include either of the substring "TH" or "LL".
- (b) Display data of all employees sorted by their department, seniority and salary.
- (c) Find all the employees who have no manager.
- (d) To display all employees who were hired during 1995.
- (e) Show the average salary for all departments with more than 3 people for a job.

- (f) Find out number of employees having 'MANAGER' as job.
- (g) Create view DEPT20 with name and the salary of employees for dept 20.
- (h) Display department no. and number of employees in each department.
- (i) Find the output of the following :
 1. SELECT SYSDATE FROM DUAL;
 2. SELECT ENAME,SAL FROM EMPLOYEE WHERE DEPTNO=20;
 3. SELECT COUNT(*) FROM EMP;
 4. SELECT AVG(SAL) FROM EMP;

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

WORKERS

W ID	FIRSTNAME	LASTNAME	ADDRESS	CITY
102	Sam	Tones	33 Elm St.	Paris
105	Sarah	Ackerman	440 U.S. 110	New York
144	Manila	Sengupta	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	Wasington
335	Henry	Williams	12Moore Street	Boston
403	Ronny	Lee	121 Harrison St.	New York
451	Pat	Thompson	11 Red Road	Paris

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.
- (ii) To display the content of workers table in ascending order of LASTNAME.
- (iii) To display the FIRSTNAME, LASTNAME and total salary of all clerks from the tables WORKERS and DESIGN, where total salary is calculated as SALARY + BENEFITS.
- (iv) To display the minimum salary among Managers and Clerks from the table DESIG.
- (v) Give the output of following:
 - a. SELECT FIRSTNAME, SALARY FROM WORKERS, DESIG WHERE

- DESIGNATION = 'Manager' AND WORKERS.W ID = DESIG.W ID
- b. SELECT COUNT(DISTINCT DESIGNATION) FROM DESIG.
- c. SELECT DESIGNATION, SUM(SALARY) FROM DESIGNATION GROUP BY DESIGNATION HAVING COUNT(*)<3;
- SELECT SUM(BENEFITS) FROM WORKERS WHERE DESIGNATION = 'Salesman';

4. Write SQL commands for the statements (i) to (vi) on the basis of the table **EMPLOYEE**:

Name	EmpNo	DeptNo	Job	Sal	Comm
G. Hussain	2098	10	President	7000	
Pallav	3099	30	Manager	9000	1400
Y.D. Sharma	8001	20	Clerk	8500	
Bhawna	7901	10	President	4520	300
A. Dasgupta	5400	20	Analyst	6580	
P. Arora	3400	10	Clerk	12000	
Col. Singhvi	2100	30	Manager	1200	500
Amit	3100	30	Analyst	3250	
A D'souza	2211	10	Clerk	6900	

- i. Show sum and average salary for marketing deptt.
- ii. Check all employees have unique names.
- iii. Find all employees whose deptt is same as of 'Amit'.
- iv. Increase the salary of all employees by 10%.
- v. Find the deptt that is paying max salaries to its employees.
- vi. Display the details of all the employees having salary less than 10000.
5. Write the SQL commands for (a) to (d) and write the output for (e) on the basis of table **Hospital** :

No	Name	Age	Department	Dateofadmin	Charge	Sex
1	Arpit	62	Surgery	21/01/06	300	M
2	Zayana	18	ENT	12/12/05	250	F
3	Kareem	22	Orthopedic	19/02/06	450	M
4	Abhilash	26	Surgery	24/11/06	300	M
5	Dhanya	24	ENT	20/10/06	350	F
6	Siju	23	Cardiology	10/10/06	800	M
7	Ankita	16	ENT	13/04/06	100	F
8	Divya	15	Cardiology	10/11/06	500	F
9	Nidhin	25	Orthopedic	12/05/06	700	M
10	Hari	28	Surgery	19/03/06	450	M

- (a) To show all information about the patients of cardiology department.
- (b) To list the name of female patients who are in ENT department.
- (c) To list names of all patients with their date of admission in ascending order.
- (d) To count the no of patients with age > 20.
- (e) Give the output of the following SQL commands:
- (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 dateofadm>{12/05/06};

6. Write the SQL commands for the following on the basis of tables INTERIORS and NEWONES

Table: INTERIORS

SNO	ITEMNAME	TYPE	DATEOFSTOCK	PRICE	DISCOUNT
1	Red Rose	Double Bed	23/02/02	32000	15
2	Soft Touch	Baby Cot	20/1//02	9000	10
3	Jerry's Home	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	Dining Table	19/02/02	11000	15

Table: NEWONES

SNO	ITEMNAME	TYPE	DATEOFSTOCK	PRICE	DISCOUNT
11	White Wood	Double Bed	23/02/02	20000	20
12	James 007	Sofa	20/02/03	15000	15
13	Tom Look	Baby Cot	21/02/03	7000	10

- (i) To list the ITEMNAME which are priced at more than 1000 from the INTERIORS table
 - (ii) 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
 - (iii) To show all information about the sofas from the INTERIORS table
 - (iv) To display ITEMNAME and DATEOF STOCK of those items in which the discount percentage is more than 15 from INTERIORS table
 - (v) To count the number of items, whose type is "Double Bed" from INTERIORS table
 - (vi) To insert a new row in the NEWONES table with the following data
14,"True Indian", "Office Table", 28/03/03,15000,20
- c) Get the Output (Use the above table without inserting the record)
- Select COUNT(distinct TYPE) from INTERIORS
 - Select AVE(DISCOUNT) from INTERIORS where TYPE="Baby Cot"
 - Select SUM(Price) from INTERIORS where DATEOF STOCK<{12/02/02}
 - Select MAX(Price) from INTERIORS , NEWONES;

7. Given the following tables for a database FURNITURE : Note: Write SQL command for (a) to (d) and write the outputs for (e) on the basis of tables FURNITURE and ARRIVALS.

Table: FURNITURE

NO.	ITEMNAME	TYPE	DATEOFSTOCK	PRICE	DISCOUNT
1	White lotus	Double Bed	23/02/02	30000	25
2	Pink teather	Baby cot	20/01/02	7000	20
3	Dolphin	Baby cot	19/02/02	9500	20
4	Decent	Office Table	01/01/02	25000	30
5.	Comfort zone	Double Bed	12/01/02	25000	25
6	Donald	Baby cot	24/02/02	6500	15
7	Royal Finish	Office Table	20/02/02	18000	30
8	Royal tiger	Sofa	22/02/02	31000	30
9	Econo sitting	Sofa	13/12/01	9500	25
10	Eating Paradise	Dining Table	19/02/02	11500	25

Table : ARRIVALS

NO.	ITEMNAME	TYPE	DATEOFSTOCK	PRICE	DISCOUNT .
11	Wood Comfort	Double Bed	23/03/03	25000	25
12	Old Fox	Sofa	20/02/03	17000	20
13	Micky	Baby cot	21/02/03	7500	15

- (a). To list the ITEMNAME which are priced at more than 15000 from the FURNITURE table.
- (b) To list ITEMNAME and TYPE of those items, in which DATEOFSTOCK is before 22/01/02 from the FURNITURE table in descending order of ITEMNAME.
- (c) To display ITEMNAME and DATEOFSTOCK of those items, in which the DISCOUNT percentage is more than 25 from FURNITURE table.
- (d) To count the number of items, whose TYPE is 'Sofa' from FURNITURE table.
- (e) Give the output of following SQL statement:

Note: Outputs of the below mentioned queries should be based on original data given in both the tables .

- (i) Select COUNT(distinct TYPE) from FURNITURE;
- (ii) Select MAX(DISCOUNT) from FURNITURE, ARRIVALS;
- (iii) Select AVG(DISCOUNT) from FURNITURE where TYPE = 'Baby cot' ;
- (iv) Select SUM(PRICE) from FURNITURE where DATEOFSTOCK < {12/02/02}

8. Given the following **LAB** table, write SQL command for the questions (i) to (iii) and give the output of (iv).

LAB

No	ItemName	CostPerItem	Quantity	Dateofpurchase	Warranty	Operational
1	Computer	60000	9	21/5/96	2	7
2	Printer	15000	3	21/5/97	4	2
3	Scanner	18000	1	29/8/98	3	1
4	Camera	21000	2	13/10/96	1	1
5	Switch	8000	1	31/10/99	2	1
6	UPS	5000	5	21/5/96	1	4
7	Router	25000	2	11/1/2000	2	5

- (i) To select the ItemName, which are within the Warranty period till present date.
- (ii) To display all the itemName whose name starts with "C".
- (iii) To list the ItemName in ascending order of the date of purchase Where quantity is more than 3.
- (iv) Give the output of the following SQL commands:
 - (a) select min(DISTINCT Quantity) from LAB;
 - (b) select max(Warranty) from LAB;
 - (c) select sum(CostPerItem) from Lab;

9. **Table : SchoolBus**

Rtno	Area overed	Capacity	No of students	Distance	Transporter	Charges
1	Vasant kunj	100	120	10	Shivamtravels	100000
2	Hauz Khas	80	80	10	Anand travels	85000
3	Pitampura	60	55	30	Anand travels	60000
4	Rohini	100	90	35	Anand travels	100000
5	Yamuna Vihar	50	60	20	Bhalla Co.	55000
6	Krishna Nagar	70	80	30	Yadav Co.	80000
7	Vasundhara	100	110	20	Yadav Co.	100000
8	Paschim Vihar	40	40	20	Speed travels	55000
9	Saket	120	120	10	Speed travels	100000
10	Jank Puri	100	100	20	Kisan Tours	95000

- (a) To show all information of students where capacity is more than the no of student in order of rtno.
- (b) To show area covered for buses covering more than 20 km., but charges less then 80000.
- (c) To show transporter wise total no. of students traveling.
- (d) To show rtno, area covered and average cost per student for all routes where average cost per student is - charges/noofstudents.
- (e) Add a new record with following data:
(11, " Moti bagh",35,32,10," kisan tours ", 35000)
- (f) Give the output considering the original relation as given:
 - (i) select sum(distance) from schoolbus where transporter=" Yadav travels";
 - (ii) select min(noofstudents) from schoolbus;
 - (iii) select avg(charges) from schoolbus where transporter=" Anand travels";
- (v) select distinct transporter from schoolbus;
- (vi)

10 **TABLE : GRADUATE**

S.NO	NAME	STIPEND	SUBJECT	AVERAGE	DIV.
1	KARAN	400	PHYSICS	68	I
2	DIWAKAR	450	COMP. Sc.	68	I
3	DIVYA	300	CHEMISTRY	62	I
4	REKHA	350	PHYSICS	63	I
5	ARJUN	500	MATHS	70	I
6	SABINA	400	CEHMISTRY	55	II
7	JOHN	250	PHYSICS	64	I
8	ROBERT	450	MATHS	68	I
9	RUBINA	500	COMP. Sc.	62	I
10	VIKAS	400	MATHS	57	II

- (a) List the names of those students who have obtained DIV 1 sorted by NAME.
- (b) Display a report, listing NAME, STIPEND, SUBJECT and amount of stipend received in a year assuming that the STIPEND is paid every month.
- (c) To count the number of students who are either PHYSICS or COMPUTER SC graduates.
- (d) To insert a new row in the GRADUATE table:
11,"KAJOL", 300, "computer sc", 75, 1
- (e) Give the output of following sql statement based on table GRADUATE:
 - i. Select MIN(AVERAGE) from GRADUATE where SUBJECT="PHYSICS";
 - ii. Select SUM(STIPEND) from GRADUATE WHERE div=2;
 - iii. Select AVG(STIPEND) from GRADUATE where AVERAGE>=65;
 - iv. Select COUNT(distinct SUBDJECT) from GRADUATE;

Assume that there is one more table GUIDE in the database as shown below:

Table: GUIDE

MAINAREA	ADVISOR
PHYSICS	VINOD
COMPUTER SC	ALOK
CHEMISTRY	RAJAN
MATHEMATICS	MAHESH

- g) What will be the output of the following query:
SELECT NAME, ADVISOR FROM GRADUATE,GUIDE WHERE SUBJECT=MAINAREA;

11. Write SQL command for (a) to (g) on the basis of the table SPORTS

Student NO	Class	Name	Game1	Grade	Game2	Grade2
10	7	Sammer	Cricket	B	Swimming	A
11	8	Sujit	Tennis	A	Skating	C
12	7	Kamal	Swimming	B	Football	B
13	7	Venna	Tennis	C	Tennis	A
14	9	Archana	Basketball	A	Cricket	A
15	10	Arpit	Cricket	A	Atheletics	C

- (a) Display the names of the students who have grade 'C' in either Game1 or Game2 or both.
- (b) Display the number of students getting grade 'A' in Cricket.
- (c) Display the names of the students who have same game for both Game1 and Game2.
- (d) Display the games taken up by the students, whose name starts with 'A'.
- (e) Assign a value 200 for Marks for all those who are getting grade 'B' or grade 'A' in both Game1 and Game2.
- (f) Arrange the whole table in the alphabetical order of Name.
- (g) Add a new column named 'Marks'.

12.

Employees

Empid	Firstname	Lastname	Address	City
010	Ravi	Kumar	Raj nagar	GZB
105	Harry	Waltor	Gandhi nagar	GZB
152	Sam	Tones	33 Elm St.	Paris
215	Sarah	Ackerman	440 U.S. 110	Upton
244	Manila	Sengupta	24 Friends street	New Delhi
300	Robert	Samuel	9 Fifth Cross	Washington
335	Ritu	Tondon	Shastri Nagar	GZB
400	Rachel	Lee	121 Harrison St.	New York
441	Peter	Thompson	11 Red Road	Paris

EmpSalary

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

Write the SQL commands for the following :

- (i) To show firstname,lastname,address and city of all employees living in paris
- (ii) To display the content of Employees table in descending order of Firstname.
- (iii) To display the firstname,lastname and total salary of all managers from the tables Employee and empsalary , where total salary is calculated as salary+benefits.
- (iv) To display the maximum salary among managers and clerks from the table Empsalary.
- (v) Give the Output of following SQL commands:
 - (i) Select firstname,salary from employees ,empsalary where designation = 'Salesman' and Employees.empid=Empsalary.empid;
 - (ii) Select count(distinct designation) from empsalary;
 - (iii) Select designation, sum(salary) from empsalary group by designation having count(*) >2;
 - (iv) Select sum(benefits) from empsalary where designation ='Clerk';

13 Write SQL commands for the following taking in view the following table as SCHOOL:

No.	Name	Age	Department	Sex
1	Ankit	45	Comp.Sc.	M
2	Sumit	32	History	M
3	Amit	22	Geog	M
4	Suchitra	23	Maths	F
5	Ankita	22	Hindi	F
6	Shruti	21	Comp.Sc.	F
7	Raksha	22	Hindi	F
8	Priya	33	Maths	F

- b. To show all information about the members of the Hindi Department.
- c. To list the names of female members who are in Hindi department.
- d. To list names of all members with the ascending order of their ages.
- e. To display member's name, age and department name of males.
- f. To count the number of members with age >21.
- g. To insert a new row in the SCHOOL table with the following data :
9, "Pinto",31,"Maths","M"
- h. Give the output of the following, considering the above table :
 - a. SELECT COUNT (DISTINCT AGE) FROM SCHOOL;
 - b. SELECT MAX(AGE) FROM SCHOOL WHERE SEX = "M";
 - c. SELECT AVG(AGE) FROM SCHOOL WHERE SEX ="M";
 - d. SELECT SUM(AGE) FROM SCHOOL WHERE SEX="M";

14. Write SQL command for (a) to (g) on the basis of the table GAMES

Table: GAMES

GCode	Game Name	Number	PrizeMoney	ScheduleDate
101	Carom Board	2	5000	23-Jan-2004
102	Badminton	2	12000	12-Dec-2003
103	Table Tennis	4	8000	14-Feb-2004
105	Chess	2	9000	01-Jan-2004
108	Lawn Tennis	4	25000	19-Mar-2004

Table: PLAYER

Pcode	Name	GCode
1	Nabi Ahmed	101
2	Ravi Sahai	108
3	Jatin	101
4	Nazneen	103

- (a) To Display the details of all games with their codes.
- (b) To display details of those games which are having PrizeMoney more than 7000.
- (c) To display the content of GAMES table in ascending order of ScheduleDate.
- (d) TO Display sum of PrizeMoney for each of the number of participation grouping (as shown in column number 3.
- (e) SELECT COUNT (DISTINCT Number) FROM GAMES;
- (f) SELECT MAX (ScheduleDate), MIN (ScheduleDate) FROM GAMES;
- (g) SELEC SUM (PrizeMoney) FROM GAMES;
- (h) SELECT DISTINCE Gcode FROM PLAYER;