

PRELIM BOARD -2 - XII IP

INSTRUCTIONS:

1. Paper is divided into 3 sections i.e TYPE A, B and C.
2. Type A, consists of 7 questions(1-7). Each questions carries 2 mark each
3. Type B, consists of 3 questions(8-10). Each questions carries 3 mark each
4. Type C, consists of 3 questions(11-13). Each questions carries 4 mark each
5. Internal Choices have been given for questions number 1,3,7,8 and 12

SECTION A (14 MARKS)

- Q1. Alisha needs a network device that should regenerate the signal over the same network before the signal becomes too weak or corrupted. Chris needs a network device to connect the different networks together that work upon different networking models so that the two networks can communicate properly. 2

OR

A says, "In this network topology, one malfunctioning node doesn't affect the rest of the network and it is easy to add and remove nodes." B says, "In this network topology, cable length required is less but if the main cable encounters some problem, the whole network breaks down"

- Q2.(a) Name any two popular Email Server names. 1
- (b) VoIP:
- VoIP is a technology that allows you to make voice calls using a broadband internet connection.
 - If you are calling a regular phone number, the signal is converted to a regular telephone signal before it is sent directly from a computer.

Who am I?

- Q3. i) Write SQL query to get the second highest salary among all employees. (Table: Employee, Columns: Id, Salary, DeptID) 2
- ii) Write SQL query to find employees that have the same name and email. (Table: Employee, Columns: ID, Name, Email)

OR

- i) What is the difference between the where clause and the having clause?
- ii) What is wrong with this query to get the list of employees not in Dept 1?

SELECT Name FROM Employee WHERE DeptID <> 1;

Employee Table:

Id	Name	DeptID
1	John	NULL
2	George	2
3	Smith	1
4	Ray	NULL

- Q4. Sahil, a class X student, has just started understanding the basics of Internet and web technologies. He is a bit confused in between the terms 'World Wide Web' and 'Internet'. Help him in understanding both the terms with the help of suitable examples of each. 2
- Q5. Help Reshma in predicting the output of the following queries: 2
- i) select round(8.72,3);
- ii) select round(9.8);
- Q6. Rohan, is a student of class 12 learning MySQL, he wants to remove leading and trailing spaces from a character expression X, where X= 'LEARNING ####MYSQL####' (#denotes a blank space) and also give the output of X help him with an example 2

Q7. Mr. Rohan, a HR Manager in a Vedanta Hospital has created the following table to store the records of Doctor: 2

ID	DOCNAME	DEPARTMENT	DOJ	GENDER	SALARY
1	AMIT KUMAR	Orthopedics	1993-02-12	M	35000
2	ANITA HANS	Pediatrics	1998-10-16	F	30000
3	SUNITA MAINI	Gynecology	1991-06-23	F	40000
4	JOE THOMAS	Surgery	1994-10-20	M	55000
5	GURPREET KAUR	Pediatrics	1999-11-24	F	52000
6	ANANDINI BURMAN	Oncology	1994-03-16	F	31000
7	SIDDHARTH DANG	Surgery	1995-09-06	M	47000
8	RAMA MUKHERJEE	Oncology	2000-06-27	F	54500

He has written following queries: Predict the output.

- i) select SUM(Salary) from Doctor where Department = 'Surgery';
- ii) select Department, Count(*) from Doctor Group By Department;

OR

Based on the table given above, help Mr. Rohan writing queries for the following task:

- i) To display the names and salaries of doctors in descending order of salaries.
- ii) To display the name of each department along with total salary being given to doctors of that department

SECTION B (9 MARKS)

- Q8. 3
- a) Select concat("information", "technology")
 - b) Select instr("computer", "er")
 - c) Select truncate(465.4993, 2)
 - d) Select mod(5,2)
 - e) Select substr("information technology",-5)
 - f) Select month('2010-02-07');

OR

Write SQL statements for the following:

- i) Display the length of the string "Informatics Practices".
- ii) Display the position of "My" in "Enjoying MySQL".
- iii) Display the name of current month.
- iv) Display system date.
- v) Display date after 10 days of current date.
- vi) Display the day of current date

Q9. Write the query for the following: 3

- a) Display first three characters extracted from 5th right character onwards from string "ABCDEFGH"
- b) Convert and display string 'large' into uppercase.
- c) Write a query to remove leading spaces of string ' RDBMS MySQL'.
- d) Display the position of string 'LE ' in field job of table Empl
- e) How many characters are there in string 'CANDIDE'.
- f) To compute the remainder of division between two numbers n1 and n2

Q10. What are the aggregate function SQL, Explain 2 aggregate function with an example? 3

SECTION C (12 MARKS)

Q11. Carefully observe the following table named 'STATIONARY': 4

ICODE	INAME	CATEGORY	QTY	UNITPRICE	STKDATE
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444	DRAWING COPY	101	110	21	31-JULY-2010
445	SHARPENER CAMLIN	102	235	3	01-AUG-2010
450	ERASER NATRAJ	101	40	2	17-AUG-2010
452	GEL PEN MONTEX	103	50	5	30-DEC-2009
457	GEOMETRY BOX	101	35	45	15-11-2009
467	PARKER PREMIUM	102	60	205	27-OCT-2009
469	OFFICE FILE	103	32	25	13-SEP-2010

Write SQL queries for the following:

- To display the records in decreasing order of price.
- To display category and category wise total quantities of products.
- To display the quantity and its average quantity.
- To display category and category wise lowest price of the product

Q12. Satyam, a database analyst has created the following table worker:-

4

WORKER_ID	FIRST_NAME	LAST_NAME	SALARY	JOINING_DATE	DEPARTMENT
001	MONIKA	ARRORA	100000	2014-02-20	HR
002	NIHARIKA	VERMA	80000	2014-06-11	ADMIN
003	VISHAL	SINGHAL	300000	2014-02-20	HR
004	AMITABH	SINGH	500000	2014-02-20	NULL
005	VIVEK	BHATI	NULL	2014-06-11	ADMIN
006	VIPUL	DIWAN	200000	2014-06-11	ACCOUNT
007	SATISH	KUMAR	75000	2014-01-20	ACCOUNT
008	GEETIKA	CHOHAN	90000	2014-04-11	ADMIN

He has written following queries:

- select sum(salary) from worker where department='admin' and firstname like '%a';
- select max(salary)*12 as Annual salary from worker where department= 'account';
- select min (joining_date) from worker where salary>80000;
- select length(FIRST_NAME) from worker where DEPARTMENT is NULL;

Help him in predicting the output of the above given queries.

OR

Ms. Sarkar is working on a MySQL table named 'Resort' having following structure

Field	Type	Null	Key	Default	Extra
User_Id	Varchar(20)	Yes		NULL	
Name	Varchar(20)	Yes		NULL	
City	Varchar(20)	Yes		NULL	
Mobile_no	Varchar(11)	Yes		NULL	

She needs to perform following task on the table:

- To display the 2nd and 3rd characters from the user_id column.
- To display the total no of characters in each city.
- To display last 3 digits extracted from the mobile numbers of users.
- To display the details of user whose city is in Mumbai, Delhi

Suggest suitable SQL function for the same. Also write the query to achieve the desired task.

Q13. (a) What are the common services provided by any web portal?

2

(b) What s VoIP? Where is it used ?

2