Series : %BAB%

SET-4

प्रश्न–पत्र कोड
Q.P. Code **90**

रोल नं.
Roll No.

Candidates must write the Q.P. Code on the title page of the answer-book.

- Please check that this question paper contains **8** printed pages.
- Q.P. Code given on the right hand side of the question paper should be written on the title page of the answer-book by the candidate.
- Please check that this question paper contains **13** questions.
- **Please write down the Serial Number of the question in the answer-book before attempting it.**
- 15 minutes, time has been allotted to read this question paper. The question paper will be distributed at 10.15 a.m. From 10.15 a.m. to 10.30 a.m., the candidates will read the question paper only and will not write any answer on the answer-book during this period.

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INFORMATICS PRACTICES

*Time allowed : **2** hours*

*Maximum Marks : **35***

General Instructions :

(i) *This question paper is divided into* ***3 Sections – A, B*** *and* ***C****.*

(ii) ***Section A****, consists* ***7*** *questions* ***(1-7)****. Each question carries* ***2*** *marks.*

(iii) ***Section B****, consists* ***3*** *questions* ***(8-10)****. Each question carries* ***3*** *marks.*

(iv) ***Section C****, consists* ***3*** *questions* ***(11-13)****. Each question carries* ***4*** *marks.*

(v) *Internal choices have been given for question numbers –* ***1, 3, 7, 8*** *and* ***12****.*

SECTION – A

(Each question carries 2 marks)

1. Rushil thought "WWW" and "Internet" are synonyms i.e., they meant same and can be used interchangeably. But the teacher said that they are not same. Help him to understand the meaning of both the terms with the help of a suitable example of each. **2**

OR

What are Cookies ? How can we disable Cookies ?

2. (i) What is the function of a Gateway ? **1**

(ii) Give examples of any two plug-ins. **1**

3. Find the output of the following SQL Queries : **2**

(i) `SELECT ROUND (7658.345,2);`

(ii) `SELECT MOD(ROUND (13.9,0),3);`

OR

Give any two differences between the POWER( ) and SUM( ) SQL functions.

4. Give one advantage and disadvantage each of Bus and Star topology. **2**

5. Find the output of the following SQL queries : **2**

(i) `SELECT SUBSTR("FIT INDIA MOVEMENT",5);`

(ii) `SELECT INSTR("ARTIFICIAL INTELLIGENCE", "IA");`

6. Srikanth created the following table STUDENT in his database. **2**

Table : STUDENT

RollNo	Name	Class	Marks
1	Ritika	12	40
2	Angad	12	35
3	Kaveri	11	42
4	Lalitha	12	21
5	Daniel	11	44
6	Rabindra	11	39
7	Rabia	11	28

He now wants to count number of students in each class where the number of students is more than 3. He has executed the following query :

```
SELECT MAX(Marks) FROM STUDENT WHERE COUNT(*)>3 GROUP BY Class;
```

But, he got an error. Identify the error(s) and rewrite the query. Also underline the correction(s) done.

7. Ms. Mohini is working in a school and stores the details of all students in a table **SCHOOLDATA**. **2**

TABLE : SCHOOLDATA

Admno	Name	Class	House	Percent	Gender	Dob
20150001	Aditya Das	10	Green	86	Male	2006-02-20
20140212	Harsh Sharma	11	Red	75	Male	2004-10-05
20090234	Swapnil Pant	10	Yellow	84	Female	2005-11-21
20130216	Soumen Rao	9	Red	91	Male	2006-04-10
20190227	Rahil Arora	10	Blue	70	Male	2005-05-14
20120200	Akasha Singh	11	Red	64	Female	2004-12-16

Write SQL statements from the above given table to :

(i) To remove leading spaces from the column Name.

(ii) Display the names of students who were born on Sunday.

OR

Predict the output of the following SQL queries from the given table : **SCHOOLDATA**

(i) `SELECT MAX`(Percent) `FROM` SCHOOLDATA;

(ii) `SELECT LEFT`(Gender,1),Name `FROM` SCHOOLDATA `WHERE YEAR`(Dob)=2005;

SECTION – B

(Each question carries 3 marks)

8. Predict the output of the following SQL queries : **3**

(i) `SELECT TRIM`(" ALL THE BEST ") ;

(ii) `SELECT POWER`(5,2);

(iii) `SELECT UPPER(MID`("start up india",10));

OR

Consider a table "**MYPET**" with the following data :

Table : **MYPET**

Pet_id	Pet_Name	Breed	LifeSpan	Price	Discount
101	Rocky	Labrador Retriever	12	16000	5
202	Duke	German Shepherd	13	22000	10
303	Oliver	Bulldog	10	18000	7
404	Cooper	Yorkshire Terrier	16	20000	12
505	Oscar	Shih Tzu	NULL	25000	8

Write SQL queries for the following :

(i) Display the Breed of all the pets in uppercase.

(ii) Display the total price of all the pets.

(iii) Display the average life span of all the pets.

9. Write the names of SQL functions to perform the following operations : **3**

(i) Display name of the Month from your date of birth.

(ii) Convert email-id to lowercase.

(iii) Count the number of characters in your name.

10. Consider the following table : **PRODUCT** **3**

Table **: PRODUCT**

PID	PNAME	PRICE	QUANTITY
P1001	Eraser	10.50	5
P1002	Ball Pen	15.00	2
P1003	Gel Pen	25.10	3
P1004	Ruler	5.00	1

Find the output of the following SQL queries :

(i) `SELECT` 10+`MOD`(QUANTITY,3) `FROM` PRODUCT `WHERE PNAME` = "Eraser";

(ii) `SELECT ROUND`(PRICE,2)*QUANTITY `FROM` PRODUCT `WHERE` QUANTITY > 2;

(iii) `SELECT UCASE`(`RIGHT`(PNAME,2)) `FROM` PRODUCT;

SECTION – C

(Each question carries 4 marks)

11. Consider the table : ITEM **4**

Table : **ITEM**

SNo	Itemname	Type	Price	Stockdate
1	Chaises	Living	11500.58	2020-02-19
2	Accent Chairs	Living	31000.67	2021-02-15
3	Baker Racks	Kitchen	25000.623	2019-01-01
4	Sofa	Living	7000.3	2020-10-18
5	Nightstand	Bedroom	NULL	2021-07-23

Write SQL queries for the following :

(i) Display all the records in descending order of Stockdate.

(ii) Display the Type and total number of items of each Type.

(iii) Display the least Price.

(iv) Display the Itemname with their price rounded to 1 decimal place.

12. Consider the following table : 4

Table : **SALESMAN**

Scode	Sname	Area	Qtysold	Dateofjoin
S001	Ravi	North	120	2015-10-01
S002	Sandeep	South	105	2012-08-01
S003	Sunil	NULL	68	2018-02-01
S004	Subh	West	280	2010-04-01
S005	Ankit	East	90	2018-10-01
S006	Raman	North	NULL	2019-12-01

Predict the output for the following SQL queries :

(i) `SELECT MAX`(Qtysold), `MIN`(Qtysold) `FROM` SALESMAN;

(ii) `SELECT COUNT` (Area) `FROM` SALESMAN;

(iii) `SELECT LENGTH` (Sname) `FROM` SALESMAN `WHERE MONTH`(Dateofjoin)=10;

(iv) `SELECT` Sname `FROM` SALESMAN `WHERE RIGHT`(Scode,1)=5;

OR

Based on the given table **SALESMAN** write SQL queries to perform the following operations :

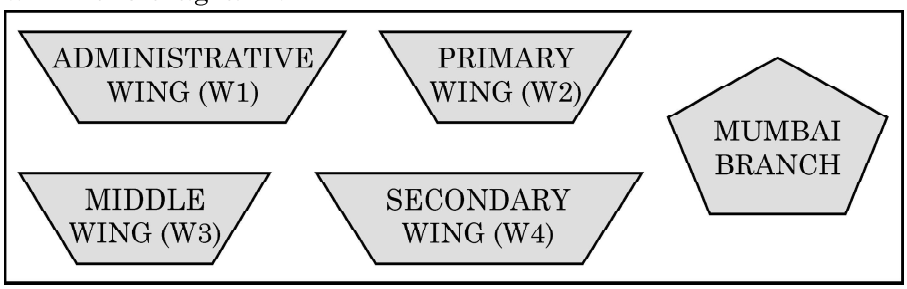
(i) Count the total number of salesman.

(ii) Display the maximum qtysold from each area.

(iii) Display the average qtysold from each area where number of salesman is more than 1.

(iv) Display all the records in ascending order of area.

13. ABC International School, Delhi has different wings Administrative Wing (W1), Primary Wing (W2), Middle Wing(W3) and Secondary Wing(W4) as shown in the diagram : 4



The school also has a branch in Mumbai. The school management wants to connect all the wings as well as all the computers of each wing (W1, W2, W3, W4).

Distance between the wings are as follows :

W3 to W1	85 m
W1 to W2	40 m
W2 to W4	25 m
W4 to W3	120 m
W3 to W2	150 m
W1 to W4	170 m

Number of computers in each of the wing :

W1	125
W2	40
W3	42
W4	60

Based on the above specifications, answer the following questions :

(i) Suggest the topology and draw the most suitable cable layout for connecting all the wings of Delhi branch.

(ii) Suggest the kind of network required (out of LAN, MAN, WAN) for connecting

(a) Administrative Wing (W1) with Middle Wing (W3)

(b) Administrative Wing (W1) with the Mumbai branch.

(iii) Suggest the placement of the following devices with justification :

(a) Repeater

(b) Switch/Hub

(iv) Due to pandemic school had to adopt Online classes. Suggest the protocol that is used for sending the voice signals over internet. Also, give an example of an application of WWW that helped the teachers to send messages instantly to the students.

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