SAMPLE PAPER -2
INFORMATICS PRACTICES(065) - XII
TERM - 2

Maximum Marks: 35   **Time: 2 hours**

General Instructions

1. The question paper is divided into 3 sections – A, B and C
2. Section A, consists of 7 questions (1-7). Each question carries 2 marks.
3. Section B, consists of 3 questions (8-10). Each question carries 3 marks.
4. Section C, consists of 3 questions (11-13). Each question carries 4 marks.
5. Internal choices have been given for question numbers – 1, 3, 7, 8 and 12.

Section –A
Each question carries 2 marks

Q1. Shashank has just started learning website development. But he is confused about the terms web server and web hosting. Help him in understanding these terms.   **2**

OR

For web pages where the information is changed frequently, for example, stock prices, weather information which out of the following options would you advice?

i) Static web page   ii) Dynamic web page

 Justify your answer.

Q2. (i) I: **1**
   - allow you to make voice calls
   - convert voice into a digital signal that travels over the internet
   - allow you to make a call directly from a computer.
   Who am I?

Q3. Write the output of the following SQL queries: **2**
 (i) Select Truncate(456.89,-2);

 (ii) Select Round(5868.766,2);

OR

Explain the difference between Round() and Truncate() functions.

Q4. A student is surfing a website named www.learnpython4cbse.co.in He is confused about the different parts of a domain name. Help him understand. **2**

Q5. Ahil is learning SQL functions. Help him to use the correct functions: **2**
(i) To display the day like "Monday", "Tuesday" from the date when India got independence.

(ii) To display the specified number of character from a particular position of given string.

Q6. Aryan wants to group the result set based on some column's value. also, he wants that the group result should appear in sorted order. In which order will he write the two clauses(for sorting and grouping). Give an example to support your answer. **2**

Q7. Consider the given table FURNITURE and predict the output: **2**

No	Itemname	Type	Dateofstock	Price	Discount
1	White lotus	Double Bed	23/02/2009	30000	25
2	Pink feather	Baby Cot	20/05/2010	7000	20
3	Dolphin	Baby cot	19/12/2015	9500	20
4	Decent	Office Table	01/01/2002	25000	30
5	Comfort Zone	Double Bed	12/01/2005	25000	25
6	Donald	Baby Cot	24/11/2007	6500	15
7	Royal finish	Office Table	20/10/2007	18000	30
8	Royal tiger	Sofa	22/09/2003	31000	30
9	Econo sitting	Sofa	13/12/2016	9500	25
10	Eating paradise	Dining Table	19/08/2018	11500	25
11	WoodComfort	Double Bed	23/07/2017	25000	25
12	Old Fox	Sofa	20/06/2018	17000	20
13	Micky	Baby Cot	21/05/2020	7500	15

(i) Select Itemname, Type, Price From FURNITURE Where Year(Dateofstock) >2015;

(ii) Select Itemname, Max(Dateofstock), Discount From FURNITURE group by Discount;

OR

Based on the table given above, write SQL queries for the following tasks:

(i) To display the item name and type of the furniture with maximum price type wise.

(ii) To display the item name and type of furniture who were stocked in the months from May to October.

SECTION – B

Each question carries 3 marks

Q8. Predict the output of the following queries: **3**

(i) Select Concat(Left('Computer Science', 8), Right('Information Technology', 10));

(ii) Select substring(' Artificial Intelligence', 12,5);

(iii) Select Replace('Cold Coffee', 'Cold', 'Hot');

OR

Krishna is working on a MySQL table named 'Student' having the following columns:

Field Name	Data type
Roll_No	Integer
Name	Varchar(30)
Address	Varchar(26)
Contact_No	Char(11)
Sibling_Name	Varchar(40)

Help him write SQL queries to perform the following tasks:

(i) To display 8 characters from 3th character in Address field.

(ii) To display Name in Upper case and Sibling_Name in Lower case.

(iii) To count the total number of characters in Contact_no field.

Q9. Reena is working with functions of MySQL. Explain her following: **3**
i. What is the purpose of CURDATE () function?

ii. How many parameters does it accept?

iii. What is the general format of its return type?

Q10. While working in SQL queries, sometimes we need to extract a part of the string with the specified number of characters. Give examples of three such functions that can be used to extract a substring.   **3**

Section C
Each question carries 4 marks

Q11. A relation Vehicles is given below: **4**

V_no	Type	Company	Price	Qty
AW125	Wagon	Maruti	250000	25
J0083	Jeep	Mahindra	4000000	15
S9090	SUV	Mitsubishi	2500000	18
M0892	Mini Van	Dastun	1500000	26
M9760	SUV	Maruti	2500000	18

R2409	Mini Van	Mahindra	350000	15

Answer the following Questions:

i) Display the average price of each type of vehicle having quantity more than 20.

ii) Count the type of vehicles manufactured by each company.

iii) Display the total price of all the types of vehicles.

iv) To display the records in decreasing order of price.

Q12. Amit has created the table named 'Doctor' to record the information about the Doctor.   **4**
Help him to write SQL queries for the following tasks.

ID	DOCName	Department	DOJ	Gender	Salary
1	Amit Kumar	Orthopaedics	1993-02-12	M	35000
2	Anita Hans	Paediatrics	1998-10-16	F	30000
3	Sunita Maini	Gynaecology	1991-08-23	F	40000
4	Joe Thomas	Surgery	1994-10-20	M	55000
5	Gurpreet Kaur	Paediatrics	1999-11-24	F	52000
6	Anandini Burman	Oncology	1994-03-16	F	31000
7	Siddharth Dang	Surgery	1995-09-08	M	47000
8	Rama Mukherjee	Oncology	2000-06-27	F	54500

(i) Display the names and salaries of doctors in descending order of salaries.

(ii) Display names of each department along with total salary being given to doctors of that department.

(iii) To display names of doctors along with the average of Salary Amount of those doctors that have 'cology' anywhere in their Department names.

(iv) To display the date of joining of the oldest doctor.

OR

Based on the table named 'DOCTOR' given above, Amit has executed the following queries:

(i) SELECT SUM(Salary) FROM DOCTOR WHERE Department=='Surgery';

(ii) SELECT Department, COUNT(Distinct department) FROM DOCTOR;

(iii) SELECT DOCName FROM DOCTOR WHERE Department LIKE '%gery%';

(iv) SELECT DOCName, Department, Sum(Salary) From DOCTOR Group By Gender Having Salary > 40000;

Predict the output of the above two queries. Also, give the justification of the output generated through each query.
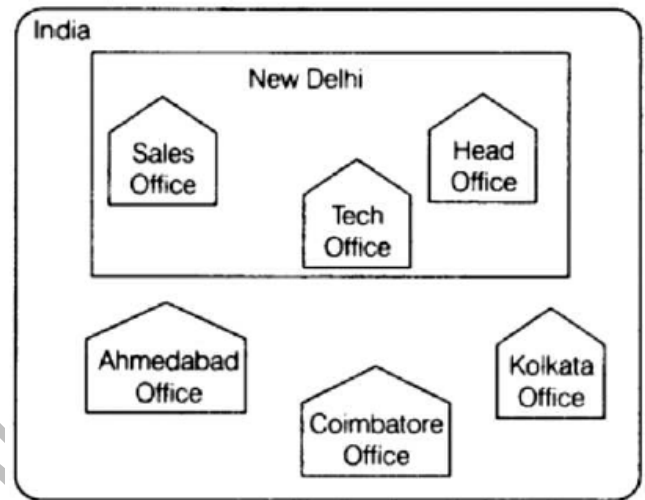
Q13. Hindustan Connecting World Association is planning to start their offices in four major cities in India to provide regional IT infrastructure support in the field of education and culture. The company has planned to setup their head office in New Delhi in three different locations and have named their New Delhi offices as Sales Office, Head Office and Tech Office. The company's regional offices are located at Coimbatore, Kolkata and Ahmedabad.

Approximate distances between these offices
A rough layout of the same is as follows:
as per network survey team is as follows:

Place from	Place to	Distance
Head Office	Sales Office	10 m
Head Office	Tech Office	70 m
Head Office	Kolkata Office	1291 m
Head Office	Ahmedabad Office	790 m
Head Office	Coimbatore Office	1952 m

In continuation of the above, the company experts have planned to install the following number of computers in each of their offices.

Head Office	100
Sales Office	20
Tech Office	50
Kolkata Office	50
Ahmedabad Office	50
Coimbatore Office	50

(i) Suggest the network type (out of LAN, MAN, WAN) for connecting each of the following set of their offices.

(a) Head Office and Tech Office

(b) Head Office and Coimbatore Office

(ii)Which device will you suggest to be procured by the company for connecting all computers within each of their offices out of the following devices?

(a) Modem   (b) Telephone   (c) Switch/Hub

(iii) Suggest the cable/wiring layout for connecting the company's local offices located in New Delhi.

(iv) Also, suggest an effective method/technology for connecting the company's regional offices at Kolkata, Coimbatore and Ahmedabad.