**General Instructions**

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

<table>
<thead>
<tr>
<th>Q. No</th>
<th>Part No.</th>
<th>Question</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>Differentiation between static and dynamic web pages:</td>
<td>(2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Static Web page</th>
<th>Dynamic Web page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Content of this type of webpage cannot be changed at run time.</td>
<td>1. Content of this type of webpage can be changed at run time.</td>
</tr>
<tr>
<td>2. No interaction with server’s database is possible in case of static web pages.</td>
<td>3. Interaction with server’s database is possible in case of dynamic web pages.</td>
</tr>
</tbody>
</table>

1 mark each for each correct differentiation mentioned above or any other relevant point of differentiation.

**OR**

The difference between a website and a web page is that a website is a collection of different web pages containing information on a particular topic. A web page is an individual page of a big website usually containing more specific information. If we compare a website with a book, then a webpage can be compared with a single page of that book.

2 marks for correct answer
2. (i) Cookies

1 mark for correct answer

(ii) Name of any two popular web browsers:
- Mozilla firefox
- Google Chrome
  OR
  Any other correct name

½ mark each for each correct browser name

3. Output:
   i. 125
   ii. 2

1 Mark for each correct answer

OR

i. power(): It returns the value of a number raised to the power of another number.
For example:

Select power(5,3);
Output: 125

ii. mod(): It returns the remainder of a number divided by another number.
For example:

Select mod(5,3);
Output: 2

1 Mark for each correct answer

4. Role of web server in hosting a website:

A web server is the main centralized computer system that hosts and runs the websites. It has a computer program that distributes web pages as they are requisitioned. The basic role of the web server is to store, process and deliver the web pages to the users as and when required.

2 Marks for correct answer
5. Output:
   i) 8.720
   ii) 10

   1 Mark for each correct answer

6. Having clause is used to further filter those groups of records which will be generated through group by clause.

   For example:

   Select max(marks) from student group by classes having classes in (10,12);

   Above given query will arrange records in groups according to the classes. Further filtering on these groups will happen through having clause, which will finally display the highest marks from classes 10 and 12.

   1 Mark for correct clause
   1 Mark for correct example

7. Mr. Som, a HR Manager in a multinational company “Star-X world” has created the following table to store the records of employees:

   **Table: Emp**

<table>
<thead>
<tr>
<th>Eid</th>
<th>EName</th>
<th>Department</th>
<th>DOB</th>
<th>DOJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Star1</td>
<td>Ivan</td>
<td>Sales</td>
<td>1994-08-28</td>
<td>2020-02-14</td>
</tr>
<tr>
<td>Star2</td>
<td>Melinda</td>
<td>IT</td>
<td>1997-10-15</td>
<td>2021-11-19</td>
</tr>
<tr>
<td>Star3</td>
<td>Raj</td>
<td>Accounts</td>
<td>1998-10-02</td>
<td>2019-04-02</td>
</tr>
<tr>
<td>Star4</td>
<td>Michael</td>
<td>Sales</td>
<td>2000-02-17</td>
<td>2020-05-01</td>
</tr>
<tr>
<td>Star5</td>
<td>Sajal</td>
<td>IT</td>
<td>2001-12-05</td>
<td>2018-06-13</td>
</tr>
<tr>
<td>Star6</td>
<td>John</td>
<td>Accounts</td>
<td>1995-01-03</td>
<td>2019-07-15</td>
</tr>
<tr>
<td>Star7</td>
<td>Julia</td>
<td>Sales</td>
<td>1985-11-13</td>
<td>2020-08-19</td>
</tr>
</tbody>
</table>

   Output:

   i) 2001
   ii) Melinda

   1 Mark for each correct answer

   OR

   Queries:
### SECTION – B
Each question carries 3 marks

<table>
<thead>
<tr>
<th>8.</th>
<th>Output:</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>11</td>
</tr>
<tr>
<td>ii.</td>
<td>cbse</td>
</tr>
<tr>
<td>iii.</td>
<td>exams</td>
</tr>
</tbody>
</table>

1 Mark for each correct answer

**OR**

<table>
<thead>
<tr>
<th>8.</th>
<th>Output:</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>right()</td>
</tr>
<tr>
<td>ii.</td>
<td>lower()</td>
</tr>
<tr>
<td>iii.</td>
<td>mid()/substr()/substring()</td>
</tr>
</tbody>
</table>

½ Mark for suggesting each correct function name
½ Mark for writing each correct query

<table>
<thead>
<tr>
<th>9.</th>
<th>i.</th>
<th>It returns the current date and time.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ii.</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>iii.</td>
<td>The return type for NOW() function is either in ‘YYYY-MM-DD HH:MM:SS’ format or YYYYMMDDHHMMSS.uuuuuu format, depending on whether the function is used in a string or numeric context.</td>
<td></td>
</tr>
</tbody>
</table>

1 Mark for each correct answer

<table>
<thead>
<tr>
<th>10.</th>
<th>i.</th>
<th>To remove leading space characters: ltrim()</th>
</tr>
</thead>
<tbody>
<tr>
<td>ii.</td>
<td>To remove trailing space characters: rtrim()</td>
<td></td>
</tr>
<tr>
<td>iii.</td>
<td>To remove both type of space characters: trim()</td>
<td></td>
</tr>
</tbody>
</table>

MySQL Queries:

```
Select ltrim('   Hello ') ;
```

```
Select rtrim('   Hello ') ;
```

```
Select trim('   Hello    ') ;
```

**Output:**
### Section C

Each question carries 4 marks

| 11. | (a) `select * from stock order by price desc;`  
|     | (b) `select category, sum(qty) from stock group by category;`  
|     | (c) `select category, avg(price) from stock group by category;`  
|     | (d) `select category, max(price) from stock group by category;`  

1 Mark for each correct query

| 12. | Output:  
|     | (a) 193  
|     | (b) 194  
|     | (c) 93.75  
|     | (d) 6  

1 Mark for each correct output

OR

First query will produce the output 7.  
**Justification:** count (*) will count and display total number of rows (irrespective of any null value present in any of the column).

Second query will produce the output 6.  
**Justification:** count (col_name) will count and display total number of not null values in the specified column.

1 Mark each for each correct output  
1 Mark each for each correct justification

| 13. | (a) LAN  
|     | As computers are placed with-in the same campus with-  
|     | in a small range.  

½ Mark for correct answer  
½ Mark for correct justification  
(b) Star topology  
½ Mark for correct answer

---

[5]
Cable Layout:

```
A
(Admin) Block

D
(Design) Block

P
(Production) Block

S
(Supply) Block
```

½ Mark for correct cable layout
(c)

i. Repeater should be placed in between Block ‘D’ (Design) and Block ‘P’ as distance is more.
ii. Hub/Switch should be placed in each building to connect various computers together.

½ Mark for each correct answer
(d) Video Conferencing software: Teams, Zoom, Skype etc. (Any one)
Protocol of Video Conferencing software: VOIP

½ Mark for each correct answer