

Roll No.

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

- Please check that this question paper contains **11** printed pages.
- Code number 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 **7** questions.
- **Please write down the Serial Number of the question before attempting it.**
- 15 minute 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 students will read the question paper only and will not write any answer on the answer-book during this period.

## MULTIMEDIA AND WEB TECHNOLOGY

*Time allowed : 3 hours*

*Maximum Marks : 70*

**Note :** (i) *All questions are compulsory.*

(ii) *Answer the questions after carefully reading the text.*

1. (a) Observe the table SKILLS and COURSES of a Database named Digital Literacy given below carefully and answer the questions that follow :

**Table : SKILLS**

| SkillID | SkillName         | SkillCategory |
|---------|-------------------|---------------|
| 101     | Critical Thinking | Cognitive     |
| 102     | Collaboration     | Social        |
| 103     | Curation          | Cognitive     |
| 104     | Creativity        | Cognitive     |
| 105     | Communication     | Social        |

**Table : COURSES**

| CourseCode | CourseName             | SkillID | NoofRegistrations |
|------------|------------------------|---------|-------------------|
| C01        | Language Skills        | 105     | 150               |
| C02        | Team Management Skills | 102     | 200               |
| C03        | Design Thinking Skills | 104     | 175               |
| C04        | Content Creator Skills | 103     | 100               |
| C05        | Programming Skills     | 101     | 250               |

- (i) Write SQL command to display details of all Courses. 1
- (ii) What is the degree of the table COURSES ? 1
- (iii) Which attribute can act as the Primary key for the table SKILLS ? Write one special characteristic of this key. 2
- (iv) Swarnima wants to display all the information of records from table SKILLS where the SkillCategory is "Cognitive". She has given the MySQL command shown below but it is showing error. Can you rectify the error and suggest the correct MySQL command to achieve the desired task ? 1

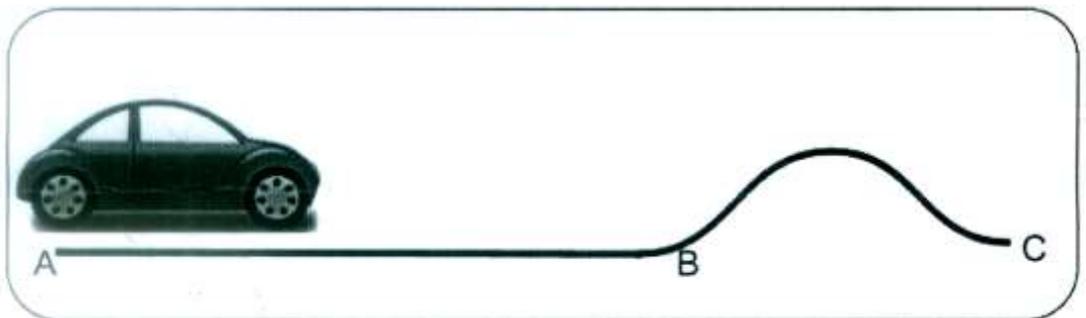
`SELECT * FROM SKILLS FOR SkillCategory Cognitive`

- (b) Aarav has created a symbol in Flash which can be clicked and used as an interactive object. Name the type of symbol he has created. 1

- (c) Sridhar is a trainer who wants to train his students for handling complex machines before actually making them work on actual machines by means of games. Which of the following multimedia technology will help him achieve this ? 1
- (i) Video on Demand
  - (ii) Virtual Reality
  - (iii) Video Conferencing
- (d) Out of JPG, GIF and TIFF, which file format has the features given below : 1
- (i) This file format is the best for any bitmap images that you intend to edit.
  - (ii) It doesn't compress files because they are meant to preserve quality.
  - (iii) These files offer options to use tags, layers, and transparency, and are compatible with photo manipulation programs like Photoshop.
- (e) Give the full forms of : 2
- (i) MPEG
  - (ii) AVI

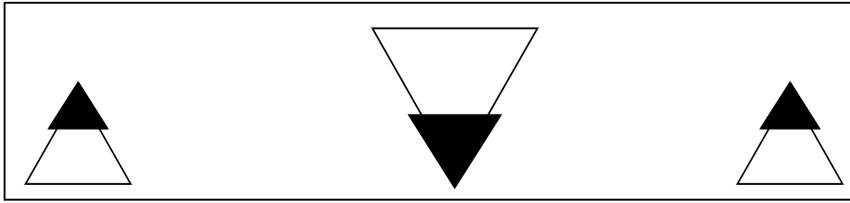
2. Answer the following questions based on Macromedia Flash :

- (a) Which feature will you use to see faint images of the keyframes before and after the current frame ? 1
- (b) Name the two tags used to insert a Flash movie into an HTML file. 2
- (c) Observe the figure given below and answer the questions that follow :



- (i) What kind of tween animation should be done from point A to B ? 1
- (ii) Name the special layer to be used to give the animation from point B to C which is a curved path. 1

(d) Observe the image given below and do as directed :



- The graphic on the left hand side shows the position and size for frame 1.
- The graphic in the middle shows the position and size for frame 25.
- The graphic on the right hand side shows the position and size for frame 50.
- The triangle graphic used in the animation is saved in the flash library.

Write the procedure and property settings for animating the above scenario. Assume that the colour remains the same during the animation.

4

3. Answer the following questions based on HTML :

(a) Fill in the blanks to complete the sentence below about HTML Heading tags.

2

There are \_\_\_\_\_ levels of headings in HTML with \_\_\_\_\_ as the most important and \_\_\_\_\_ as the least.

(b) Write the HTML code to generate the webpage in the format shown.

8

Consider the following point while writing the code :

- (i) The background colour is "YELLOW".
- (ii) Title of the webpage is ABC Products.
- (iii) The horizontal line is 5 pixels thick and RED in colour.
- (iv) The font used in the paragraph is size 5 and GREEN in colour.
- (v) The table has a blue coloured border which is 2 pixels thick and a distance of 2 pixels is maintained in-between cells.

- (vi) The images shown in the table are “16gbmsd.jpg” and “32gbmsd.jpg”.
- (vii) A hyperlink should be provided for the website given at the bottom of the page.



## ABC Products

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We have special offers on various products

1. Stationery
  - o 10% on all Paper Items
  - o 12% on Pens and Pencils
  - o 15% on Staplers and Pins
2. Electronics
  - o 5% on Pen Drive
  - o 10% on Portable HDD

Buy in Bulk and get the following add on gifts

| Amount | Add On Offer        | IMAGE   |
|--------|---------------------|---|
| 2500   | 16 GB MIRCO SD CARD |  |
| 5000   | 32 GB SD CARD       |  |

To know more about our products you may visit <http://www.abeproductshome.com>

4. Answer the following questions based on PHP :
- (a) \$\_POST is an array of variables passed to the current script via the HTTP POST method. Which of the following statements is false about the POST method ? 1
    - (i) In the POST method there is no restriction on data size to be sent.
    - (ii) Form submissions with POST can be bookmarked.
    - (iii) The POST method can be used to send ASCII as well as binary data.
    - (iv) The data sent by POST method goes through HTTP header and is more secure.
  - (b) Name the two parameters required by the PHP fopen() function. 1
  - (c) Name the inbuilt function used for the following : 2
    - (i) Perform a case-insensitive string comparison.
    - (ii) Take a string as argument and return the string with all alphabetic characters converted to uppercase.

- (d) Point out the errors in the following code. Rewrite the corrected code with corrections underlined. 2

```
<?php
if (setis($_COOKIE ['Name']))
{
    $visitor = $_COOKIE['Name'];
    echo "Hello". $visitor + "! Welcome Back!";
}
default
    echo "Invalid cookies!";
?>
```

- (e) Give the output of the following statements : 4

- (i) `echo 23% 5 + 5 * 2 - 3;`
- (ii) `echo substr ("Good Morning",-7);`
- (iii) `echo 10 * 2 / 10 + 5 ** 2;`
- (iv) `echo "Today is" . date ("F j, Y");`

5. Answer the following questions based on PHP :

- (a) Analyse the following program segment and determine how many times the loop will be executed. Justify. 2

```
<?php
$p = 200;
while(true)
{
    if($p < 200)
        break;
    $p = $p - 20;
}
echo $p;
?>
```

- (b) Differentiate between the unset() function and the session\_destroy() function. 2

(c) Study the code given below and answer the questions that follow :

```
<?php
$Score = array(30,25,17,16,18,20);
$Avg = 0;$C=0;
foreach ($Score as $S)
if ($S%10 != 0)
{
    $Avg += $S;
    $C++;
}
echo "Sum = $Avg <br>";
$Avg=$Avg/$C;
echo "Avg = $Avg";
echo "<HR>";
?>
```

- (i) What is the significance of the delimiters <?php?> in the above code ? 1
- (ii) What is stored in the element \$Score[4] ? 1
- (iii) Identify any one compound assignment operator from the above code. 1
- (iv) Give the output of the above code. 1

(d) Study the code given below :

```
<?php
$MyFil = fopen("quiz.txt", "_____");//Point 1
//***** To display lines until end-of-file *****
while(_____($MyFil)) //Point 2
{
    echo_____($MyFil)."<br>"; //Point 3
}
_____($MyFil); //Point 4
?>
```

Fill in the blanks (Point 1 to Point 4) to complete the above code fragment that reads the text in the file quiz.txt and displays the content line by line on the web page. 2

6. Answer the following questions based on JavaScript :

- (a) Taruni wrote a code to get the output shown in Figure 1 but she is getting the output as shown in Figure 2.

1

Figure 1 :

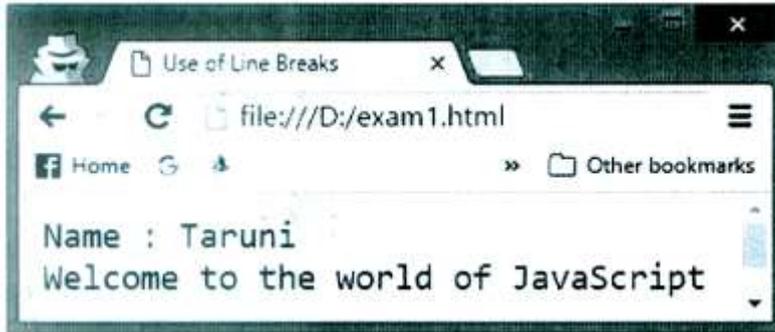


Figure 2 :



Correct the code to help Taruni get the desired output.

```
<HTML>
<HEAD>
<TITLE>Use of Line Breaks</TITLE>
</Head>
<BODY>
<SCRIPT LANGUAGE="JavaScript">
document.write("Name : ")
document.writeln("Taruni")
document.write("Welcome to the world of JavaScript")
</SCRIPT>
</BODY>
</HTML>
```

- (b) Identify the statement that is equivalent to the given statement. 1

**document.write("Hello! Welcome to JavaScript World")**

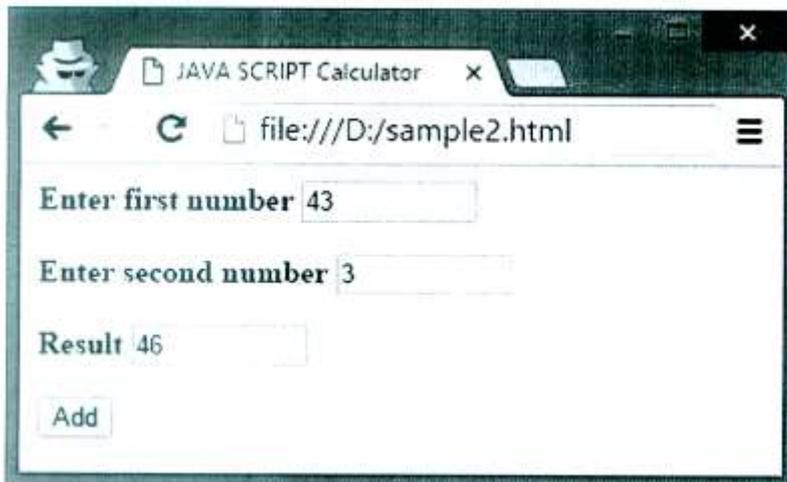
- (i) location.document.write("Hello! Welcome to JavaScript World")  
(ii) alert("Hello! Welcome to JavaScript World")  
(iii) window.document.write("Hello! Welcome to JavaScript World")  
(iv) body.document.write("Hello! Welcome to JavaScript World")
- (c) Predict the final value of i and j after the execution of the following command if the initial value of i=3 : 2

`j = (i++) + (--i) + (++i) + (i++)`

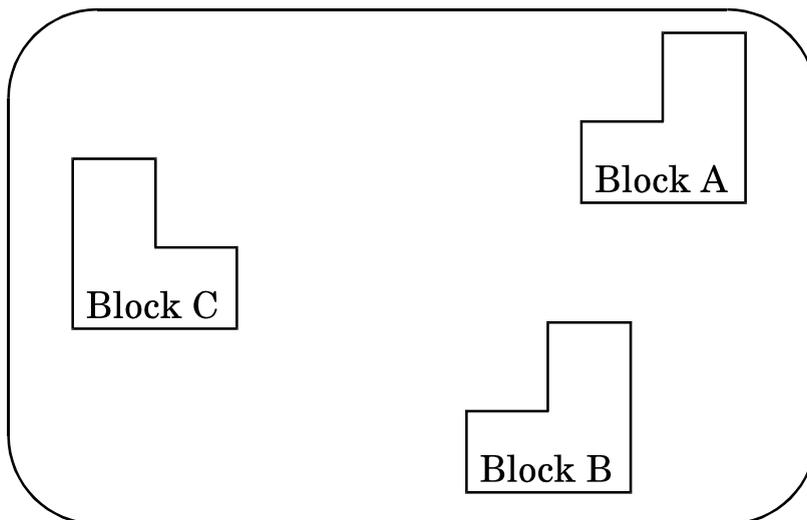
- (d) Rewrite the following code using do..while loop instead of for loop without affecting the output : 2

```
<SCRIPT LANGUAGE="JavaScript">
var Arr = new Array(3)
a=2
for (k=0;k<=3;k++)
{
    Arr[k]=a
    a=a+3
    document.writeln(Arr[k])
}
</SCRIPT>
```

- (e) Write the HTML code to design the webpage as shown below with 3 textboxes and a button. Also write the embedded JavaScript code to add the values of the first two textboxes and display the same in the third textbox on the click of the Add button. 5



7. (a) Two engineers have connected their mobile phones to transfer a picture of a building being designed by them. 2
- (i) What type of network is formed ?
- (ii) Which communication media out of Microwave, Radiowave, Bluetooth, Satellite link should be used to transfer the file ?
- (b) Which protocol helps us to browse through webpages using internet browsers ? Name any one internet browser. 2
- (c) Write two advantages of 4G over 3G Mobile Telecommunication Technologies in terms of speed and services. 2
- (d) EduLimitless Solutions is in the process of setting up their new campus in a remote area. As a network expert, you are expected to help the institution by studying the physical locations of various blocks and the number of computers to be installed. On the basis of the given information, provide the best possible answers for the queries (i) to (iv) to help them in the planning phase.



Block to Block distances (in mtrs.) :

| <b>Place From</b> | <b>Place To</b> | <b>Distance</b> |
|-------------------|-----------------|-----------------|
| Block A           | Block B         | 50m             |
| Block B           | Block C         | 80m             |
| Block C           | Block A         | 40m             |

Expected number of computers in each block :

| <b>Block</b> | <b>No. of Computers</b> |
|--------------|-------------------------|
| Block A      | 80                      |
| Block B      | 30                      |
| Block C      | 40                      |

- (i) Draw the most appropriate cable layout to connect all three blocks for efficient communication. 1
- (ii) Name the topology formed by the above cable layout. 1
- (iii) Name the block that is most suitable to house the server for this campus with a suitable reason. 1
- (iv) Which wireless channel out of the following should be chosen by the Company Management to connect to their campus in another country ? 1
- Radiowave
  - Microwave
  - Satellite