

**WEB TECHNOLOGIES
(CSEN 3282)**

Time Allotted : 3 hrs

Full Marks : 70

Figures out of the right margin indicate full marks.

*Candidates are required to answer Group A and
any 5 (five) from Group B to E, taking at least one from each group.*

Candidates are required to give answer in their own words as far as practicable.

**Group – A
(Multiple Choice Type Questions)**

1. Choose the correct alternative for the following: **10 × 1 = 10**
- (i) A HTTP request encountered a server error. Which of the following is a possible error status code that the client will receive?
(a) 1xx (status code starting with 1) (b) 2xx
(c) 4xx (d) 5xx.
- (ii) A web client sends a request to a web server. The web server transmits a program to that client and is executed at client. It creates a web document. What are such web documents called?
(a) Static Web page (b) Dynamic Web page
(c) Active Web Page (d) Passive Web Page.
- (iii) Which object is the top of the hierarchy of HTML DOM?
(a) Window Object (b) Form Object
(c) Document Object (d) Form Control Elements.
- (iv) `<p id="good">Good Morning</p>`
(a) `document.getElementById("good").innerHTML="Good Night";`
(b) `document.getElementById("good").innerHTML=" Good Night";`
(c) `document.getId("good")=" Good Night";`
(d) `document.getElementById("good").innerHTML= Good Night;`
- (v) Predict the output of the following JavaScript code.
`<script type="text/javascript">
a = 8 + "8";
document.write(a);
</script>`
(a) 16 (b) Compilation Error (c) 88 (d) Run Time Error.
- (vi) The definitions in an XML document are said to be _____ when the tagging system and definitions in the DTD are all in compliance.
(a) well-formed (b) Reasonable (c) valid (d) logical.

- (vii) What is the code for getting the current time?
(a) `now=new Date();` (b) `var now= Date();`
(c) `var now=new Date();` (d) `var now=new Date(current);`
- (viii) Which of the following code is used to get session in servlet?
(a) `request.getSession()` (b) `response.getSession()`
(c) `new Session()` (d) None of the above.
- (ix) Which of the following is not a valid CSS selector?
(a) Attribute (b) Element (c) Class (d) ID.
- (x) Cookie is created and sent by
(a) web browser (b) web server
(c) Application server (d) Database server.

Group – B

2. (a) Consider a HTML table definition given below:

```
<table border=1>
  <tr> <td rowspan=2> ab </td>
    <td colspan=2> cd </td>
  </tr>
  <tr> <td> ef </td>
    <td rowspan=2> gh </td>
  </tr>
  <tr> <td colspan=2> ik </td>
  </tr>
</table>
```


State the number of rows in each column and the number of columns in each row. Write HTML code that will display the text CRICKET TEAMS spread over two rows and top right corner.
- (b) Write the differences between static web pages and dynamic web pages with example. Create a basic page in html that displays a text. When the user places a cursor over the text, use the `onMouseOver` event to replace the text with a different colored text. When the user removes the cursor from the text, use the `onMouseOut` event to return it to its original state.
- (3 + 3) + (3 + 3) = 12**
3. (a) Write an external CSS file to style a table so that the odd rows have a yellow background and a header row has style white text and a black background color. Change the font so that they are all 14 point sans serif of some kind.
- (b) Write the difference between GET and POST method.
Write a html document to create a Job registration form,
(i) create test box for Name
(ii) create two radio buttons for Gender specification.
(iii) create a textarea for additional information.
(iv) create username and password for future login.

(v) create submit and reset buttons.

5 + (2 + 5) = 12

Group – C

4. (a) Write a DTD and XML for the following customer data
- Customer id
 - Customer name(first and last name must be specified)
 - Mobile no(can be more than one)
 - Address (must contain 3 fields- state, pin, country)
 - Credit Card(credit card no and type(domestic and international) must be specified.

(b) Differentiate SAX and DOM parser.

(6 + 4) + 2 = 12

5. (a) Write a javascript explicit regular expression to validate email and phone number. Phone no must be only numbers and email must have the format like abc@gmail.com.

(b) In the following Code snippet can you please predict the output or If you get an error; please explain the error?

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h2> <strong> Sample: Software Testing Help</strong> </h2>
```

```
<p id="sum_first"></p>
```

```
<p id="sum_second"></p>
```

```
<script>
```

```
var sum_first = 50 + 20 + ' Sajeesh Sreeni ';
```

```
var sum_second = " Sajeesh Sreeni " + 50 + 20;
```

```
document.getElementById("sum_first").innerHTML = "The first variable sum is :"+sum_first + "<br>The second variable sum is :"+sum_second ;
```

```
</script>
```

```
</body>
```

```
</html>
```

Write a simple servlet program which will return the current date and time.

(2 + 2) + (3 + 5) = 12

Group – D

6. (a) Why a session object is considered more secure and advantageous than cookie? What is Web container? What are JSP implicit objects?

(b) Write a simple JSP to count and display the checkbox contents that are selected in the html page.

(2 + 2 + 3) + 5 = 12

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7. What is JDBC Driver? Write the name of 4 types of JDBC driver and Explain. Define 5 steps to access data in a RDBMS from a java application using JDBC.

(2 + 6 + 4) = 12

Group – E

8. Write Short Notes on:

(3 × 4) = 12

- (i) Phishing
- (ii) Trojan Horse
- (iii) Spoofing.

9. (a) Why is the SSL layer positioned between the application layer and the transport layer? What is the purpose of the SSL alert protocol?

- (b) What is a worm? How does it differ from a virus? What is packet filtering firewall? Briefly explain its working principle.

(1 + 4) + (2 + 5) = 12

Department & Section	Submission Link
CSE	https://classroom.google.com/c/MzY5MTI2NjE5NjQ5/a/MzY5MTI2NjE5NjY3/details