BCS-053

BACHELOR OF COMPUTER APPLICATIONS (BCA) (Revised)

01643   **Term-End Examination**

December, 2018

BCS-053 : WEB PROGRAMMING

Time : 2 hours   *Maximum Marks : 50*

(Weightage : 75%)

*Note : Question no. 1 is **compulsory** and carries 20*
*marks. Attempt any **three** questions from the rest.*

1. (a)   What are the uses of Cascading Style
           Sheets (CSS) in the context of Web
           Programming ? How can a style sheet be
           used with HTML document ? Also explain
           the concept of Class selector and ID
           selector in the context of CSS.   4

(b) Represent the following information of books using XML document. You may design your own tags. Also write the DTD that validates this XML document. *4*

Book Title	Programming Fundamentals	Web Programming
Publisher	ABC	XYZ
ISBN	2016-12345	2015-14897
First Author	Ravi Sethi	A. Tanenbaum

(c) What is the need of HTML DOM ? Consider the following HTML document :

```
<html>
<head> Test </head>
<body>
<p   id = "Welcome"> Welcome to
                       Examination </p>
   ⋮

   ⋮

</body>
</html>
```

Write JavaScript code in this HTML document that replaces the "Welcome to Examination" to "Welcome to JavaScript" when this HTML document is displayed in web browser. Make suitable assumptions, if any. *4*

(d) What is a cookie ? Why is it needed ? Write the command to create a new cookie having a name testcookie. Also write the command to set the life of this cookie to 10 minutes. *4*

(e) What is a "Safe Method" in the context of HTTP ? Is GET a safe method ? Justify your answer. Explain the GET method with the help of an example. *4*

2. (a) Explain the use of the following in HTML with the help of an example : *5*

(i) SELECT element in the context of forms.

(ii) Tags used to create a table in an HTML page.

(b) What is meant by 'Event Capturing' ? Explain with the help of an example. *3*

(c) Explain the use of AJAX. *2*

3. (a) What is WAP ? Why is it needed ? *3*

(b) Explain the uses of the following WAP elements : *4*

(i) <pre>

(ii) <em>

(iii) <img src>

(iv) <set var>

(c) What is a web service ? Explain with the help of an example. *3*

4. (a) Explain the role of each tier in three-tier architecture of web application. *3*

   (b) Differentiate between the following : *4*

      (i) Static web page versus Dynamic web page

      (ii) Model versus View in the context of MVC architecture

   (c) Write a scriptlet using JSP that adds numbers from 1 to 10 and prints this result. *3*

5. Explain any *four* of the following with the help of an example or a diagram, if needed : $4 \times 2\frac{1}{2} = 10$

   (a) DriverManager class in JSP

   (b) Loading a JDBC database driver

   (c) Processing the result obtained from database access, while using JSP

   (d) Session Management

   (e) Include Directive

   (f) Exception handling using JSP