

**B.Tech. – VIEP – COMPUTER SCIENCE AND
ENGINEERING (BTCSVI)**

00520

Term-End Examination

December, 2017

BICS-023 : WEB TECHNOLOGY

Time : 3 hours

Maximum Marks : 70

*Note : Attempt any **seven** questions. All questions carry equal marks.*

1. (a) What is WWW ? How is Web 2.0 different from Web 1.0 ? Explain the uses of TCP and IP protocols in the context of Internet. 5
- (b) How is a web application different from a simple client-server application ? Explain with the help of an example. 5
2. (a) What is the importance of a Form in a web application ? 2
- (b) Explain the use of the following elements of HTML with the help of an example each : $4 \times 2 = 8$
 - (i) Input element for text input
 - (ii) Radio button input
 - (iii) Table tag
 - (iv) Anchor elements

3. (a) Create an XML document that stores the following information of books :

- Book title
- ISBN number of book
- One or more author names

You must show information about the following two books using this XML structure :

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	Book 1	Book 2
Book title	XML	HTML
ISBN number	1234567	3214576
Authors	(i) Burdman B (ii) Sklar Joel	(i) Chris Bates

(b) What is DOM in the context of HTML ? Explain with the help of an example, how JavaScript can be used to replace an element in an HTML document.

5

4. (a) Explain the life cycle of a servlet with the help of a diagram.

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(b) How is GET method different from POST in the context of HTTP requests ? Explain with the help of an example.

5

5. (a) What is a JavaBean ? Explain with the help of a simple example.

4

(b) What is JSP ? How is it different from Servlets ? Explain how JSP can be used to create dynamic pages with the help of a simple example/diagram.

6

6. (a) Explain the use of the following JSP action elements using an example : 6
- (i) `<jsp : include >`
 - (ii) `<jsp : forward >`
- (b) List any four JSP implicit objects giving their uses. 4
7. (a) What are compilation time errors and runtime or request time errors in JSP ? Give one example of each. 5
- (b) What is JDBC ? Why is it needed ? Explain the DriverManager class in this context. 5
8. A user inputs a username and password on a client machine. This information is to be verified from a database (any). Write all the steps/commands that you need to perform to verify the user, using the database, using JDBC. 10
9. (a) What is the need of cookies ? Explain with the help of an example. 4
- (b) Define the following terms : 6
- (i) EJB
 - (ii) Packages
 - (iii) Struts Framework

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

- (a) Web Server
 - (b) Events in the Context of Web Programming
 - (c) HTTP
 - (d) Session
 - (e) Cyber Laws
 - (f) Dynamic HTML
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