

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

**00520**      **Term-End Examination**  
**December, 2017**

**BICS-023 : WEB TECHNOLOGY**

*Time : 3 hours*

*Maximum Marks : 70*

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

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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.

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**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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