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**BTECH**  
**(SEM V) THEORY EXAMINATION 2018-19**  
**WEB TECHNOLOGIES**

**Time: 3 Hours****Total Marks: 70****Notes:** Assume any missing data.**SECTION A****1. Attempt all questions in brief.****2 x 7 = 14**

- a. What is bytecode?
- b. Define constructor.
- c. What is a Instance Variable?
- d. When is it appropriate to use frames?
- e. What is the use of alternative text in image mapping?
- f. What are the two major protocols for accessing email from servers?
- g. What do you mean by Checked Exceptions?

**SECTION B****2. Attempt any three of the following:****7 x 3 = 21**

- a. Create an html page named as "Table.html" to display your class time table.
  - i) Provide the title as Time Table.
  - ii) Provide various color options to the cells ( Highlight the lab hours and elective hours with different colors.)
- b. Compare Java and JavaScript. Write a JavaScript program to define a user defined function for sorting the values in an array.
- c. What is the difference applet and application? How is Java strongly associated with internet? Draw a flowchart to show various java tools are used in application development.
- d. Compare JSP and Servlet. Explain the lifecycle of a JSP page with a suitable diagram. Also list any five action tags used in JSP.
- e. What are the uses of layout managers? Give the name of classes that represents the layout managers. Explain any five layout managers.

**SECTION C****3. Attempt any one part of the following:****7 x 1 = 7**

- (a) Explain the HTTP Protocol. Mention three basic features of HTTP that make HTTP a simple but powerful protocol. Give its architecture.
- (b) What is XML? Create a XML document of 10 students of final CSE. Add their roll numbers, marks obtained in 5 subjects, total marks and percentage. Save this XML document at the server, write a program that accepts student's roll number as input and returns the students marks, total percentage by taking student information for XML document.

**4. Attempt any one part of the following:****7 x 1 = 7**

- (a) Discuss how frames play a big role in advertising on web. What roles do form play in making web page dynamic.
- (b) What are exceptions and how they are handled? Explain with an example. How we define a try and catch block? Is it essential to catch all types of exceptions?

**5. Attempt any one part of the following:**

**7 x 1 = 7**

- (a) Create an html page named as “String\_Math.html” and within the script tag define some string variables and use different string function to demonstrate the use of the predefined functions. Do the same for the Math function.
- (b) What are the advantages and drawback of Applet? Write a Java program to create an Applet for calculator and also perform event handling on each button.

**6. Attempt any one part of the following:**

**7 x 1 = 7**

- (a) What do you mean by CSS? Write a CSS rule that makes all the text 2.5 times larger than the base font of the system. Mention how can you integrate CSS on a web page?
- (b) What is difference between Session and Cookies? Write a servlet program for servlet login and logout using cookies.

**7. Attempt any one part of the following:**

**7 x 1 = 7**

- (a) What is JDBC? Explain the Drivers used in JDBC. Write a JDBC Program for insert and display the record of employeess using prepared statement.
- (b) What are XML Parsers? Explain the types of parsers with their advantages and disadvantages.

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