Printed Pages: 02 Sub Code: KIT-501

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B.TECH (SEM V) THEORY EXAMINATION 2022-23 WEB TECHNOLOGY

Time: 3 Hours Total Marks: 100

Note: Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. Attempt all questions in brief.

 $2 \times 10 = 20$

- (a) Discuss the comparison among JDK, JRE and JVM?
- (b) Discuss basic elements of a good website design.
- (c) Discuss the usage of Cascading style sheets.
- (d) What is DHTM?
- (e) Define Protocol. Provide the name of protocols governing web
- (f) What to you understand by Datagram?
- (g) Discuss difference between ODBC and JDBC.
- (h) Discuss do Post() and do Get() method.
- (i) Discuss difference between CGI and Servlet.
- (j) Discuss JSP Technology.

SECTION B

2. Attempt any *three* of the following:

 $10 \times 3 = 30$

- (a) Discuss the Packages in Java. Discuss how to create a user defined package in Java with a suitable example.
- (b) Write HTML code to design "a form for online Railway Reservation Website" (Make Assumptions).
- (c) What is AJAX and also discuss its Advantages? Explain its working with a suitable Example.
- (d) Write down the steps to connect database with web application using JDBC.
- (e) Explain the Servlet Life Cycle. Write a servlet code to display a string "WEAR MASK!"

SECTION C

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

 $10 \times 1 = 10$

- (a) What are 'Exceptions' and how they are 'Handled' in Java? Explain the keywords try, catch, throw, throws with a suitable example.
- (b) Discuss what you understand by Inheritance? List out various type Inheritance with suitable example

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

 $10 \times 1 = 10$

- (a) Write the HTML code to design a Student registration form. (Assume fields).
- (b) What is DTD? Discuss its differences with XML Schema.

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

 $10 \times 1 = 10$

- (a) Discuss in brief how to perform Client Side Validation like Mandatory fields and Email field using Java Script? Justify with a suitable example.
- (b) What is CSS? Discuss the different ways to create CSS. Explain with example.

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

 $10 \times 1 = 10$

- (a) What is EJB, also discuss its Architecture. Differentiate between Java Bean and EJB.
- (b) What are java Beans? Why they are used? Write a JSP page and use an existing java bean in JSP page by using the standard action. Write the program with describing the output?

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

 $10 \times 1 = 10$

- (a) Discuss the different types of standard action tags used in JSP. Discuss the implicit objects available to JSP page.
- (b) (i) Create a HTML Form for taking Account Number as User Input.
 - (ii) Write a Servlet program receiving this HTML form data and connect it with the Database by using JDBC.
 - (iii) Send the current user Account Balance stored in a specific Database back to the User as response.
 - (iv) Mention all the assumptions like Table Name, Database Name, Field Name etc