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Code No. : 16638

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD*Accredited by NAAC with A++ Grade***B.E. (I.T.) VI-Semester Main & Backlog Examinations, June-2022****Web Technologies**

Time: 3 hours

Max. Marks: 60

*Note: Answer all questions from Part-A and any FIVE from Part-B***Part-A (10 × 2 = 20 Marks)**

Q. No.	Stem of the question	M	L	CO	PO
1.	Which tag in HTML can be used to embed another document within the current HTML document? Give its syntax.	2	1	1	1
2.	Illustrate the output that would be rendered by the following block of html script: <pre><!DOCTYPE html> <html> <head> <title>Greet</title> <style> ul li{display: inline;} </style> </head> <body> Hello - World </body> </html></pre>	2	3	1	2
3.	Predict the output of the following block of code: <pre><script> let value1 = "45"; let value2 = 2; document.write(value1+value2+"
"); document.write(value1*value2); </script></pre>	2	3	2	2
4.	How is an XML attribute different from XML element?	2	2	2	1
5.	Differentiate between using .container and .container-fluid classes in Bootstrap?	2	2	3	1
6.	What is the significance of \$scope in AngularJS?	2	1	3	1

Contd... 2

7.	What are the different interfaces and classes of the Servlet API that can be used for creating a Servlet?	2	1	4	1
8.	Mention the advantages of using JSTL.	2	1	4	1
9.	What is a Web Service? What are the different types of web services?	2	1	5	1
10.	List the elements of a SOAP message structure along with their purpose.	2	1	5	1
Part-B (5 × 8 = 40 Marks)					
11. a)	Design a web page using HTML and CSS to display the scores of an IPL match, the team names should be displayed in their respective team colors, and the score of the winning team should be displayed in a font whose size and type should be different from the score of the losing team.	4	3	1	3
b)	Explain the different kinds of CSS selectors with the help of examples.	4	2	1	1
12. a)	Develop a webpage using HTML, CSS & JavaScript to take the Date of birth as input, and on clicking the button, the age of the user should be calculated and displayed as shown below: <div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;"> <p>Enter Date of Birth: <input type="text" value="25-07-2005"/> <input type="button" value=""/></p> <p style="text-align: center;"><input type="button" value="Calculate age"/></p> <p style="text-align: center;">16 years old</p> </div> <p>Also, the border for the output should be set based on the border size given by the user, which is to be read using a prompt box on loading of the page.</p>	5	3	2	3
b)	Demonstrate with an example how an element can be removed from a web page by using HTML DOM in JavaScript.	3	3	2	3
13. a)	Develop a webpage to cycle through a set of images using the Carousel component of Bootstrap along with “prev” and “next” controls.	4	3	3	3
b)	Design a web page to read the phone number of the user as input, write AngularJS code to change the background colour of the text input to red color if the user enters an invalid phone number. The phone number should be considered to be valid if it has only numbers and has exactly 10 digits.	4	3	3	3
14. a)	Write a block of code for maintaining the name of each user and the number of visits made by the user in a particular session by using HttpSession instance, also log an entry into stdout.log each time a new attribute is added to the session.	5	3	4	3

b)	Develop a web page using JSP to take the search key as input from the user and on clicking the search button the user should be redirected to the Google search results of the given search key. <div style="border: 1px solid black; padding: 5px; width: fit-content;"> Enter your search key: <input style="width: 100px;" type="text"/> <input type="button" value="search"/> </div>	3	3	4	3
15. a)	Discuss the merits and demerits of REST based web services over SOAP based web services.	4	2	5	2
b)	Illustrate the architecture of a SOAP based web service and explain the steps involved in implementing a SOAP based web service.	4	2	5	1
16. a)	Explain the CSS Box model with the help of a neat diagram.	4	1	1	1
b)	What is XML DTD? What are the advantages and disadvantages of using DTDs?	4	2	2	2
17.	Answer any <i>two</i> of the following:				
a)	Explain how the bootstrap grid classes can be used to design responsive web pages that can adapt to different screen sizes.	4	2	3	1
b)	Illustrate the different steps in the lifecycle of a Servlet that is created in Question 14a	4	3	4	3
c)	Differentiate between a website and a web service.	4	2	5	2

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20%
ii)	Blooms Taxonomy Level – 2	35%
iii)	Blooms Taxonomy Level – 3 & 4	45%
