



B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2024

(Regulation 2018)

Third / Sixth Semester

COMPUTER SCIENCE AND ENGINEERING

U18CSI6201: Internet and Web Programming

COURSE OUTCOMES

- CO1:** Design a Website using HTML.
- CO2:** Apply Cascading Style Sheet to design a HTML Webpage.
- CO3:** Develop a HTML form and validate it using Java Script.
- CO4:** Develop web application using JSP, Servlet.
- CO5:** Develop an XML document and validate it using SCHEMA.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

1. Identify the correct HTML markup for the document type declaration. CO1 [K₃]
 - <!DOCTYPE html>
 - DOCTYPE html;
 - --DOCTYPE html;
 - <DOCTYPE html>
2. Add a "tooltip" to the paragraph below with the text "About HTML". CO1 [K₁]

<p _____ ="About HTML">HTML is a markup language</p>
3. Develop CSS code to apply style to the background, paragraph and heading. CO2 [K₃]
4. Develop HTML page to apply CSS for the image give below. CO2 [K₃]

5. Debug and fill in the missing part of the below code to get the output as shown below. CO3 [K₄]

```

<html>
<body>
<h1>JavaScript Arithmetic</h1>
<h2>Arithmetic Operations</h2>
<p>A typical arithmetic operation takes two numbers (or expressions) and produces a new number.</p>
<p id="demo"></p>

```

```

let a = 3;
let x = (_____ + _____) * a;
document.getElementById("_____").innerHTML = _____;
</script>
</body>
</html>

```

6. Find the output of the following code.

CO3 [K₃]

```

<!DOCTYPE html>
<html>
<body>
<h1>JavaScript Arrays</h1>
<h2>Bracket Indexing</h2>
<p>JavaScript array elements are accessed using numeric indexes (starting from 0).</p>
<p id="demo"></p>
<script>
const fruits = ["Banana", "Orange", "Apple", "Mango"];
document.getElementById("demo").innerHTML = fruits[fruits.length-1];
</script>
</body>
</html>

```

7. Write the basic servlet skeleton code.

CO4 [K₂]

8. Develop JSP code to print current date and time.

CO4 [K₂]

9. Refer the following XML document and correct its well-formedness.

CO5 [K₂]

```

<?xml version="1.0" encoding="UTF-8"?>
<note>
<to>Tove</to>
<from>Jani</form>
<heading>Reminder</pheading>
<body>Don't forget me this weekend!</body>
<note>

```

10. Explain webservice with an example.

CO5 [K₂]

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

(Answer not more than 400 words)

11. a) Develop HTML page for the below given resume format. 7

CO1 [K₃]

<p style="text-align: center;"><u>CURRICULUM VITAE</u></p> <p>Name Goes Here Address : _____ Email : _____ Phone : _____</p> <p><u>PERSONAL DETAILS</u></p> <ul style="list-style-type: none"> ▪ Date Of Birth : _____ ▪ Sex : _____ ▪ Marital Status : _____ ▪ Nationality : _____ ▪ Language Known : _____ <p><u>CAREER OBJECTIVE</u></p> <p>To be a part of an organization where I can devote myself fully and joyfully give out best of my talents & skills to become its strong asset.</p>	<p style="text-align: center;"><u>EDUCATION QUALIFICATION</u></p> <p><u>Strength</u></p> <ul style="list-style-type: none"> ▪ Punctuality ▪ Hard Working ▪ Ability to learn new things ▪ Willing to do anything. <p><u>Hobbies</u></p> <ul style="list-style-type: none"> ▪ Listening Music ▪ Playing Outdoor Games <p>I declare that the above information is true to the best of my knowledge.</p> <p>Date : _____ Place : _____</p>
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- b) Develop HTML page to print the following table. 7 CO1 [K₃]
- c) Develop HTML page for the following form. 2 CO1 [K₂]

12. a) Refer to the below given window 1 & 2 and explain the purpose of both with an example code to implement the same. 7 CO2 [K₃]



Window:1

Window:2

- b) Develop HTML form to validate the retype password validation with appropriate user messages. 7 CO2 [K₃]
- c) List any four methods inherited by String Instances. 2 CO2 [K₁]
13. a) Develop servlet code to perform arithmetic operations. Write the relevant HTML form code and servlet code. 7 CO3 [K₃]
- b) Explain about session and illustrate the client and server interaction through session ID with a sequence diagram. 7 CO3 [K₂]
- c) Summarize the cookie class methods with their purpose. 2 CO3 [K₂]
14. a) Summarize the attributes of JSP page directives with an example code. 7 CO4 [K₂]
- b) Develop the following JSP page for user registration. Write the relevant form and response JSP page code to print the registration details. 7 CO4 [K₃]

c) Illustrate MVC architecture and explain about it. 2 CO4 [K₂]

15. a) Refer to the below given XML document and develop the schema to validate it. 7 CO5 [K₃]

```
<?xml version="1.0" encoding="UTF-8"?>
<breakfast_menu>
<food>
<name>Belgian Waffles</name>
<price>$5.95</price>
<description>Two of our famous Belgian Waffles with plenty of real maple syrup</description>
<calories>650</calories>
</food>

<food>
<name>Strawberry Belgian Waffles</name>
<price>$7.95</price>
<description>Light Belgian waffles covered with strawberries and whipped cream</description>
<calories>900</calories>
</food>
<food>
<name>Berry-Berry Belgian Waffles</name>
<price>$8.95</price>
<description>Light Belgian waffles covered with an assortment of fresh berries and whipped cream</description>
<calories>900</calories>
</food>
</breakfast_menu>
```

b) Refer to the XML document given below and develop the XSLT code to transform it into Image-1 format. 7 CO5 [K₃]

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="cdcatalog.htm"?>
<catalog>
<cd>
<title>Empire Burlesque</title>
<artist>Bob Dylan</artist>
<country>USA</country>
<company>Columbia</company>
<price>10.90</price>
<year>1985</year>
</cd>
</catalog>
```

My CD Collection

Title	Artist
Empire Burlesque	Bob Dylan

Image-1

c) Illustrate SOAP message structure. 2 CO5 [K₂]

16. a) Illustrate Servlet life cycle and explain about each method available in it with its purpose. 7 CO3 [K₂]

b) Develop servlet code to implement the cookies for the following login page. Consider the cookies for the maximum age duration of 2 hours. 7 CO3 [K₃]

c) Identify the use of parameter data in URL. 2 CO3 [K₃]
