



B.E DEGREE EXAMINATIONS: APRIL / MAY 2023

(Regulation 2018)

Sixth Semester

INFORMATION SCIENCE AND ENGINEERING

U18ISI6203: Internet and Web programming

COURSE OUTCOMES

CO1: Develop front end application using HTML5 and CSS3.

CO2: Enhance interactivity and perform validation using JavaScript.

CO3: Design responsive webpages using Bootstrap.

CO4: Develop server-side applications using Node JS and MongoDB.

CO5: Understand essential functionalities like user authentication and services like Backend as a Service.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Matching type item with multiple choice code

CO1 [K₃]

List I(Tag)	List II(Usage)
A) <I>.....</I>	i) To strike a line through the middle of the text.
B) <STRIKE>.....</STRIKE>	ii) To italicize text.
C) ^{.....}	iii) To make text appear slightly below the normal line of text.
D) _{.....}	iv) To make text appear slightly above the normal line of text.

	A	B	C	D
a)	ii	i	iv	iii
b)	iii	iv	ii	i
c)	ii	iv	iii	i
d)	iii	i	ii	iv

2. How many columns are allowed in a bootstrap grid system?

CO3 [K₂]

a) 2	b) 3
c) 12	d) 5

3. What are the advantages of express? CO4 [K₂]
- 1.It has fast I/O
 - 2.Single threaded
 - 3.It makes Routing complex
 - 4.Multi-threaded
- a) 1,3 b) 1,4
c) 1,2 d) 2,3
4. The class used to shape an image to a circle is _____ CO3 [K₂]
- a) .img-rounded b) .img-circle
c) .img-round d) None of the above
5. Assertion (A): Division by zero is not considered as an error in JavaScript. CO2 [K₂]
Reason (R): There is an exception in JavaScript, dividing zero with zero will not have any defined number, so it shows 0.
- a) Both A and R are Individually true and R is the correct explanation of A b) Both A and R are Individually true but R is not the correct explanation of A
c) A is true but R is false d) A is false but R is true
6. What will be the output of the following code snippet? CO2 [K₃]

```
<script type="text/javascript" language="javascript">
var a = "Scaler";
var result = a.substring(2, 4);
document.write(result);
</script>
```
- a) al b) ale
c) Cal d) cale
7. The correct sequence of HTML tags for starting a webpage is – CO1 [K₂]
- 1.
 - 2.<body>
 - 3.
 - 4.<html>
- a) 2-3-4-1 b) 4-2-1-3
c) 3-4-2-1 d) 4-1-3-2
8. Which of the following community Angular JS belong to? CO5 [K₂]
- a) Twitter b) Facebook
c) Google d) Microsoft
9. Examine the two statements carefully and select the answer using the codes given below: CO1 [K₂]
Assertion (A): The tag works similar to <bold> tag.
Reason (R): The words written inside can be said with strong emphasis.
- a) Both A and R are Individually true and R is the correct explanation of A b) Both A and R are Individually true but R is not the correct explanation of A
c) A is true but R is false d) A is false but R is true

10. Which type of module does http module falls? CO4 [K₂]
- a) Local b) Global
 c) Core d) Third party

PART B (10 x 2 = 20 Marks)
(Answer not more than 40 words)

11. Write CSS code for the following: CO1 [K₂]
- i) Set the background color for the hover and active link states to "yellow".
 ii) Set the list style for unordered lists to "square".

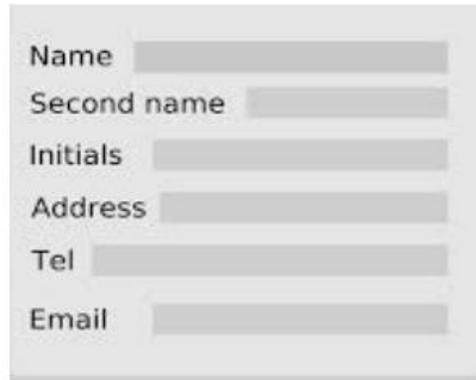
12. Write an HTML code to display the following table. CO1 [K₂]

13. Compare the client-side scripting with server-side scripting. CO2 [K₃]
14. Construct the JavaScript program to retrieve the date and time based on the computer locale. CO2 [K₃]
15. List out the methods involved in creating a responsive image. CO3 [K₂]
16. What is Firebase? CO5 [K₂]
17. List the three types of node modules. CO4 [K₃]
18. Define Bootstrap Tables. CO3 [K₂]
19. Differentiate between MongoDB and Mongoose. CO4 [K₂]
20. What is Mongoose Population? CO5 [K₂]

Answer any FIVE Questions: -
PART C (5 x 14 = 70 Marks)
(Answer not more than 350 words)

21. a) Create a website using HTML for a "Library management system". Your website (6) CO1 [K₄]
 should have a home page which helps the user to navigate to various pages like student membership, books catalog, transactions and search pages.
- b) Define CSS. Illustrate the CSS Box model and label each of the components of (8) CO1 [K₂]
 the box. What are class selectors and id selectors?
22. a) Design the below form using HTML input types and perform the following five (8) CO2 [K₄]
 validations.
- i) Name- Should have minimum 8 alphabets.
 ii) Tel-exactly 10 numbers
 iii) Email-check mail validation has @ and .com

iv)Address- should have three alphabets and the last two numbers.



A screenshot of a web form with the following fields: Name, Second name, Initials, Address, Tel, and Email. Each field has a corresponding text input box.

- b) Write a JavaScript program that receives three integers from the user and find the largest, smallest from them and display the output in HTML document message box. (6) CO2 [K₃]
23. a) Design a webpage to change the background image in every 5 seconds and insert code for inserting audio and video to the web page. (8) CO1 [K₄]
- b) Perform the following operation using array methods for a given array. (6) CO2 [K₃]
N= [12,34,56,78,3,6]
- Remove Last element of an array.
 - Add an element [45,67] to position 3 in an array.
 - Add element 90 to the beginning of an array.
 - Create a new array from the first three elements of N array v.
 - At position 5 add two elements and remove 1 element from array N
24. a) Demonstrate the layers involved in Full-Stack Web Development. (7) CO4 [K₂]
- b) Write short note on Node and the HTTP Module implementation using a simple program. (7) CO4 [K₃]
25. a) Explain the role of wireframes in web design. (7) CO3 [K₂]
- b) Write a short note on Twitter Bootstrap. (7) CO3 [K₂]
26. a) Outline Methodology to design the User Authentication with a Passport designed? (8) CO5 [K₂]
- b) Differentiate between Angular and React client. (6) CO5 [K₃]
