

The Open University of Sri Lanka
Faculty of Engineering Technology
Department of Electrical and Computer Engineering



Study Programme	: Bachelor of Software Engineering Honours
Name of the Examination	: Final Examination
Course Code and Title	: EEI4346-Web Technology
Academic Year	: 2020/21
Date	: 30 th December 2021
Time	: 0930-1230hrs
Duration	: 3 hours

General Instructions

1. Read all instructions carefully before answering the questions.
 2. This question paper consists of **Six (6)** questions in **Three (3)** pages.
 3. **Section A consist of Two (02), Answer all questions.**
 4. **Section B consist of Four (04) questions, Answer any three questions.**
 5. Answer for each question in Section A and B should write in the book provided .
 6. Each question should commence from a new page
 7. This is a Closed Book Test (CBT).
 8. Answers should be in clear handwriting.
 9. Do not use red colour pen.
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Section A

Answer all the Two (2) questions from Section A - [40 Marks]

1. Write JavaScript code for the below descriptions.
 - a. Write a JavaScript for loop that will iterate from 0 to 15. For each iteration, it will check if the current number is odd or even and display a message to the screen (5 marks)
Sample Output:
"0 is even"
"1 is odd"
"2 is even"
 - b. Write a function that accepts a number as a parameter and adds all-natural numbers smaller or equal than the parameter. The result is to be returned. (5 marks)
Example: sum(3) should return 1+2+3 = 6.
 - c. Write a function to accept a number as a parameter and check whether the number entered by the user is positive, negative or zero. (5 marks)
 - d. Write a JavaScript program that sorts words in a sentence in alphabetical order.
sentence: I am learning JavaScript (5 marks)

2. Answer the following question.
 - a. What are the differences between == and ===? (5 marks)
 - b. Name five (5) different form elements and their description. (5 marks)
 - c. Name the five (5) categories of CSS selector with examples. (5 marks)
 - d. What are the three (3) ways of inserting CSS into a web page? And give an example for each (5 marks)

Section B

Answer any three (3) questions from section B. – [60 Marks]

3. Answer the following question.
 - a. Describe two (2) similarities and two (2) differences between XML and JSON. (5 marks)
 - b. Describe five (5) differences between SOAP and RESTful web services. (5 marks)
 - c. Give two (2) examples for jQuery selectors. (5 marks)
 - d. Describe three (3) usage or advantages of using jQuery. (5 marks)

4. Answer the following question.

- a. Explain the basic flow of an AJAX call between Browser and Server. Use a diagram to illustrate. (5 Marks)
- b. Write a function to submit a form using AJAX on a button click event. (5 Marks)
- c. Write HTML of a form with a submit and a clear button. Write a JavaScript function to clear all text fields in the form using jQuery. (10 marks)

5. Answer the following question.

- a. Write PHP function to input the colour of your car and display the messages based on the colour using PHP class and object. (06 Marks)
- b. Write PHP code to display the day greeting based on the current time. (06 Marks)
E.g., Good Morning!!, Good Afternoon, Good Evening or Good Night
- c. Briefly explain the difference between **PHP GET and POST methods**. (08 marks)

6. Consider form with below form fields.

- First name – required, maximum 15 characters, alphanumeric only
 - Last name - required, maximum 15 characters, alphanumeric only
 - Email - required, maximum 25 characters, email format
 - Age – required, maximum 3 characters, numeric only
- a. Write code snippet for input validation with Constraint validation HTML Input Attributes. (5 marks)
 - b. Write the JavaScript function to validate the form with JavaScript Form Validation. (7 marks)
 - c. Write PHP code to validate the form as Server-side validation. (8 marks)

