



COMSATS UNIVERSITY ISLAMABAD (CUI)
DEPARTMENT OF COMPUTER SCIENCE
MIDTERM EXAMINATION SPRING - 2024
BS (ISEI/BS/CS)

Course: CSC336 - Web Technologies

Maximum Marks: 50

Dated: June, 2024

Instructor: Aamir Parro

Time Allowed: 45 min

Student Name: _____

Registration: _____

- Attempt all questions.
- Return the question paper along with the answer sheet.
- All questions are self-explanatory and require no further explanations during exam time.
- Make sure that you have signed the attendance sheet before leaving the examination room.

(CLO - 1: Classify web architectures and related applications.)

Q1. Short Questions

Total Marks: 3 + 3 + 4 = 10

- Explain the different types of web applications?
- What are the advantages of using an n-tiered architecture in the design and development of large-scale web applications?
- Draw a diagram of a layered architecture and explain it.

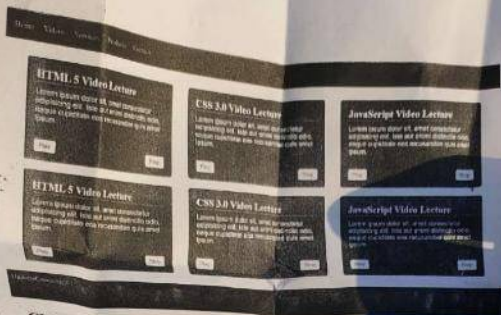
(CLO-2: Demonstrate the capabilities for developing professional front-end using client-side technologies.)

Q2. Create a video blog landing page layout design using HTML, CSS and JavaScript as shown in the figure on the next page?

Total Marks: 5 + 5 + 5 = 15

- Use HTML 5 Semantic elements where applies. **5 Marks**
 - Navigation Menu in the header
 - Video information in the body
 - Links and Copy Right Information in the footer.
- CSS 3.0 Styles.css (use flex box). **5 Marks**
 - Navigation CSS
 - Video card CSS
 - Footer CSS
- JavaScript to render the navigation menu dynamically. **5 Marks**
 - Write JavaScript code for navigation menu items to render dynamically.
 - The code you write must be modular and demonstrate arrays, functions, loops, and variable declarations.





CLO-3 Illustrate the concepts of server-side technologies for secure database interactions.

CLO-4 Apply the concepts of markup & scripting languages and client-side technologies.

- Q3.** Using XMLHttpRequest load 'users.json' file that contains user records, each record consists of id, name, and email. Onreadystatechange receive the response and display it in a dynamically generated HTML table. (5 marks)
- Q4.** Using jQuery ajax function read bookstore.xml file that contains the collection of book nodes consisting of Title and Author. In the success event parse the response "xml document", and build a JavaScript array of book objects, also display it on console. (5 marks)
- Q5.** Assume a simple web form with username, email address and a submit button. When the user fills out the form and clicks the 'submit' button, the form data is sent for processing to a PHP file named 'userinfo.php'. (4 + 4 = 8 marks)
- 1) Implement the server side 'userinfo.php' and display the posted data.
 - 2) Explain your implementation i.e. when HTTP method is used to send the data to the server.
- Q6.** Laravel Framework is an open-source PHP MVC framework for building simple to complex web applications. Laravel strictly follows the MVC (Model-View-Controller) architectural pattern. It is known for its beautiful and elegant syntax as a web framework. To demonstrate this elegant architectural pattern, you need to build a simple but clean implementation of model, view and controller using this framework. (7 marks)

Wish you good luck and you succeed in this exam to move forward smoothly.
See you in the next semester and goodbye.