



COMSATS UNIVERSITY ISLAMABAD (CUI)

DEPARTMENT OF COMPUTER SCIENCE
TERMINAL EXAMINATION SPRING - 2023
BS (CS) - V AND BS (SE) - VI

Course: CSC336-Web Technologies
Maximum Marks: 50

Instructor: Mr. Hasnain Iqbal, Ms. Saadia Maqbool
Time Allowed: 180 Minutes

Dated: June 17, 2023

- 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.
- Attempt all questions.

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

- Q.# 1. Answer the following questions **very briefly**: [6 Marks: 3+3]
- Explain the major differences between URI, URL, and URN with suitable examples.
 - Write 1-liner purpose of different components of MVC architecture and draw architectural diagram for a suitable example web application.

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

- Q.# 2. Consider a web application of a company where it shows new offers and deals to customers. You are required to provide the following as per the given instructions:

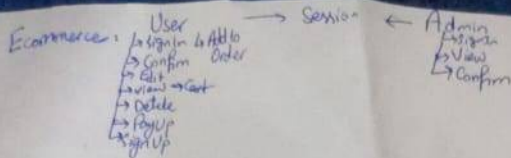
[14 Marks: 6+5+3]

- Write code snippets only (HTML and CSS) to create a responsive layout by using either CSS with Media Queries or Bootstrap grid system (mention it at the top of the solution), that is rendered for Desktop (minimum width 1024px to maximum width 1200px), Tablet (minimum width 768px to maximum width 1023px), and Smartphone (maximum width 767px) as shown in the figure. The layout also contains a footer which spans the whole width of the screen no matter the device size.
- Write JavaScript code in which you will create an array of available deals with their values and included items (i.e., Weekend Deal, Combo Deal, Premium Deal only). Also write code to update the DOM using the values in the array to show the deals when the page is rendered.
- Write jQuery code chunks for the given image. You will apply an appropriate jQuery method on a single button that will hide and show the new offers to their customers.



Click Here For Hiding/Showing New Offers

Offer A
Offer B
Offer C



(CLO – 3: illustrate the concepts of server-side technologies for secure database interactions.)

- Q.# 3. Consider an e-commerce web application where customers can view available products and orders as per their requirements. You are required to provide the following for this Laravel project: [30 Marks: 4+8+6+4+3+5]
- Write the complete 'Routes' for the given scenario, including routes for customer and admin properly. Use appropriate HTTP request methods (i.e., GET, POST, PATCH, and DELETE) in your specified routes.
 - Provide the controller code for all the routes specified (write proper controller classes). Implement all different functions that include 'confirm order, edit order, view order, and delete order' on the customer side, and view order and confirm order on the admin side. Write proper DB queries/model class methods.
 - Create the view for the form where the customer is able to make payment for the order as shown in figure 2.
 - In the login route, set session variables for the users (customer and admin), you don't have to authenticate the customers. Use proper Laravel syntax for setting session data. In the logout, route clear all session data stored for a particular user.
 - Create customer's order object with an array of three products with their details in JSON and XML format separately.
 - Provide code snippet with short comments (no extra description) for implementing promo code feature using AJAX technique.

Total Price:	Rs. 3450
Promo Code	
Code	Apply
Payment Details	
Credit Account	Balance: 50236 >
Make Payment	

Figure 2: Laravel App View

End of Question Paper