



COMSATS UNIVERSITY ISLAMABAD
DEPARTMENT OF COMPUTER SCIENCE
Terminal Examination, Spring 2022

Class/Section: - BSCS - 5A/B
Subject: - Web Technologies
Instructor: - Dr. Muhammad Imran

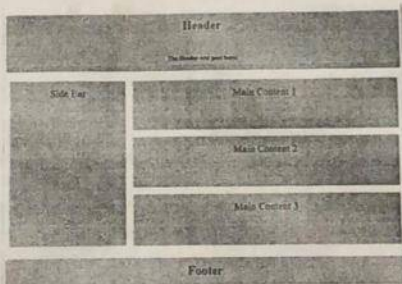
Marks: - 50
Time: - 180 minutes
Dated: - July 06, 2022

Question # 01: - [CLO1]

- a) An HTTP reply from a Web server includes response header, as well as the data (the data is typically an HTML document) sent to the browser. Give, with some example header, the structure of an HTML response. Also state what does the typical status codes imply? [5]
- b) Under the umbrella of Web for Everyone, how W3C standards have improved Web Accessibility for people with deafness disability? [5]

Question # 02: - [CLO2]

- a) What is the problem with the flexible (fluid) layout? How media queries help in resolving that issue? [5]
Write media queries for the following two scenarios:
- Change background color of a paragraph to red, if the user's device has either a minimum height of 680px or if the screen device in portrait mode.
 - Change text color of a paragraph to red, if the height and width of the user's device are exactly equal.
- b) Create the following layout using CSS Flexbox as shown in the Figure below: [5]



Question # 03: - [CLO2]

- a) What benefits does client-side scripting brings in Web Application development? Write a single paragraph in your words. [3]
- b) Create a JavaScript Object Constructor, with the name "Vehicle" and set "name", "manufacturer", "model", "color" and "year" as its properties. Perform following two operations using the Constructor: [4]
- Create a new object car and set its property values.
 - Iterate over all object properties and print their values in browser console.

- c) Write a jQuery script which reads class attribute of the following HTML code and adds text tags based on the value of the class attribute. If the value of class attribute is "blue", then it should add text "This paragraph has blue color". If the value of class attribute is "red", then it should add text "This paragraph has red color". Tags with no class attribute should remain same.

```
<body>
  <p></p>
  <p class="blue"></p>
  <p></p>
  <p class="green"></p>
  <p class="green"></p>
  <p class="red"></p>
  <p></p>
</script>
</body>
```

Question # 04: - [CLO3]

Consider a Laravel view named `index.blade.php` that allows users to choose the category of a book and a maximum price limit. This form includes a drop-down list of the available book categories, a text input for the user to enter a maximum price of the book to search and a **View Books** button to submit the form to the `search.blade.php`. The form and the database table `books` may look like as shown below:

Book Search:

Book Category:

Maximum Price:

id	category	name	price
1	drama	romeo and juliet	965
2	drama	hamlet	1744
3	satire	animal farm	253
4	horror	dracula	2078

Your task is to write a Laravel code for routes, controllers and views that performs following operations on the user inputs in the form.

- If there is no book in the store which is less than the user specified price, then the relevant error message should be displayed to the user in the `span` next to the button. For example, if the user selects category of drama and enters a maximum price limit of 500 then the system should display the message 'Sorry, there is no drama book below the price of Rs. 500'.
- If the search remains successful, the system should display list of books along with the price along with the button for delete option in the last column. For example, if the user has selected category of drama and maximum price of 1800, then the system should display list of books with their prices and name as presented in the table such as below:

Matching Books under 1800

Sr	Title	Price	Action
1	romeo and juliet	965	Delete
2	hamlet	1744	Delete

Question # 05: - [CLO3]

Write a Laravel AJAX call using Fetch API that takes name of the user as an input and searches it both in **first_name** and **last_name** fields of the person's table when the user starts typing in the **name** text field below. The matched records should be displayed in HTML Table format.

- a) Create a route to handle the AJAX call. [3]
- b) Write a method in the controller for performing the targeted CRUD operation. [3]
- c) Create a view which displays the retrieved information using HTML table. [4]

Search Person

Name:

Table: persons

id	first_name	last_name	email
1	Bilal	Khan	bilal@gmail.com
2	Kashif	Khan	kashif@example.com
3	M.	Ali	ali@example.com
4	Yasir	Khan	yasir@example.com