COMSATS UNIVERSITY ISLAMABAD

Islamabad Campus

Department of Computer Science

Terminal Exam

Class: BCS 5-A/B

June 9th , 2024

Instructors:	**Dr Bakhtiar Ali**	Course:	**CSC 336-Web Technologies**
Total Time:	**180 Minutes**	Max Marks:	**50**

Note: Question paper contains 4-pages, Attempt all questions in order.

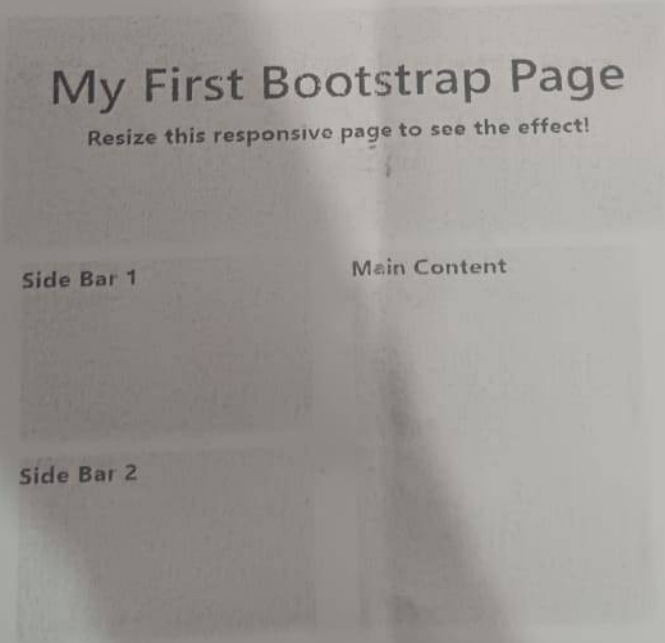
Question # 1 [CLO-C1]: [5-Marks]

1.a What are the three cascade principles used by browsers when style rules conflict? Briefly describe each. (3)

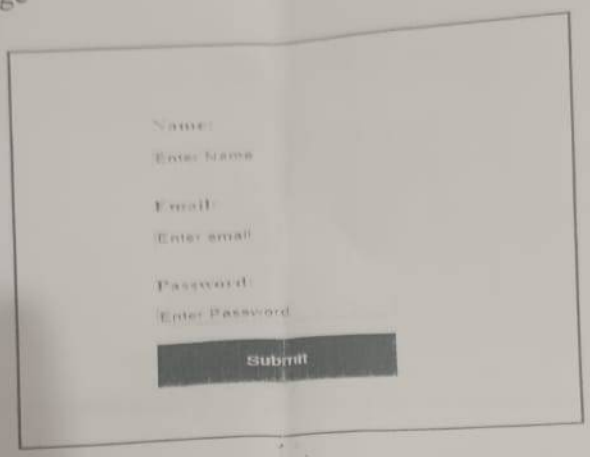
1.b What are the five key DOM selection methods? Provide an example of each one. (2)

Question # 2 [CLO-C2]: [10-Marks]

2.a *Use Bootstrap grid system to generate following layout for the* **small screen size and above** *devices as shown in the Figure below:* (5)



2.b Create a form given below using HTML with appropriate styling. And store variable information in local storage (5)



Question # 3 [CLO-C3]: [15-Marks]

3.a Following are the built-in JS methods, write the values returned by them. (3)

Built-in Method	Values
array.filter()	
array.forEach()	
array.indexOf()	
array.pop()	
array.reduce()	
array.every()	

3.b What is a DOM EventListener? (2)

3.c What will be the output of the codes below? (5)

Code-1

```
var kB = 1287;
var tooBig = (kB > 1000);
var urgent = true;
var sendFile = (urgent == true || tooBig == false);
```

What is the value of `sendFile`? _____

Code-2

```
var Employee =
{
company: 'xyz'
}
var Emp1 = Object.create(employee);
delete Emp1.company Console.log(emp1.company);
```

3.d Consider the following HTML Code (5)

```
<h1>Web Technologies</h1>
<div id="course">
    <a href="">Outline</a>
    <ul>
        <li>HTML</li>
        <li>CSS</li>
    </ul>
</div>

<input type="text" id="topic" placeholder="Enter Topic" />
<button id="add">Add</button>
```

Write *jQuery* code for following operations:

2. Set value of "href" attribute of hyperlink to "outline.html" (1)
3. Select "course" div and navigate to <a> and change its text to "CSC336 Outline". (1)
4. Select the "course" div and navigate to <h1> and set the border of its parent to "1px solid red" (1)
5. Write click event handler for "Add" button that gets value from Textbox and append it in topics list. (1)
6. Change the background color of First List Item to "yellow" and Last List Item to "green" (1)

Question # 4 [CLO-C4]: [20-Marks].

4.a. You are developing an e-commerce platform called ShopEase using Laravel. The platform needs a clear and organized routing system to handle different types of users: customers and sellers. Each user type has specific route requirements. (10)

- **Customer Routes:**
  - Browsing products: `/products`, `/products/{category}`, `/products/{product}`
  - Shopping cart: `/cart`, `/cart/checkout`
- **Seller Routes:**
  - Managing inventory: `/seller/products`, `/seller/products/add`,
  - Viewing sales: `/seller/sales`, `/seller/sales/{order}`

Provide a detailed routing configuration in `web.php` for the ShopEase platform that meets the above requirements. Ensure to group routes appropriately.

4.b Answer the following questions. (10)

1. What is template inheritance in Blade templating? (1)
2. What is Model-View-Controller (MVC) Framework (2)
3. Differentiate between Session and Cookies. (3)
4. How many steps are there for performing CRUD operations in PHP. Explain with examples (4)

BEST OF LUCK