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COMSATS UNIVERSITY, ISLAMABAD CAMPUS
DEPARTMENT OF COMPUTER SCIENCE
Midterm Examination - Spring 2022

Subject: -	CSC336 - Web Technologies	Teacher: -	Dr. Muhammad Imran
Class & Sec.	BSCS – 5A/B	Date: -	11-05-2022
Marks: -	25	Duration: -	90 minutes

Question# 01. **[CLO-1]** [2.5*2 = 5 Marks]

1. Explain the motivation behind the advent of Web 3.0. How is it being able to promote the behavioral advertising in the current Web applications?
2. What does the following statement mean: HTTP is a stateless protocol? What artifact is used if a web server needs to store a client's state?

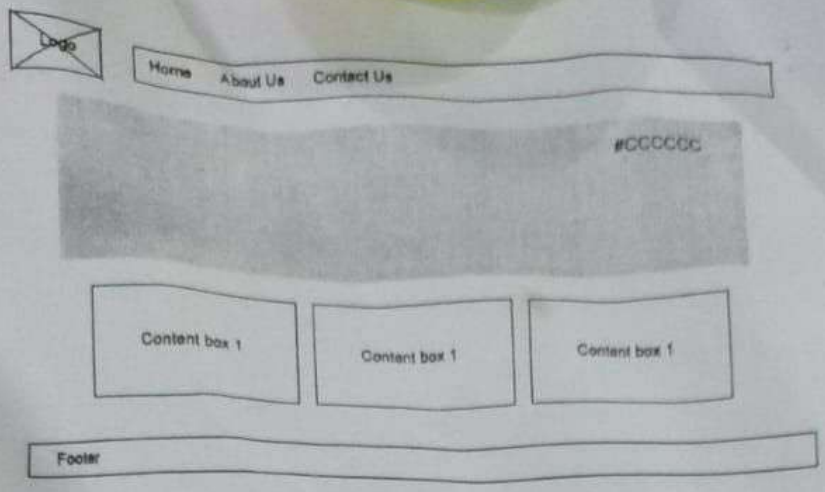
Question# 02. **[CLO-2]** [2+2+6= 10 Marks]

1. Using the concept of selector specificity, mention color of element contents (Hello World!) in parts i to iv using the following CSS fragment. Also write a single line justification of your answer.

```
h2 { color: lime; }

#content { color: black; }

.plain { color: black; }

.plain h2, h1 { color: blue; }

#division{ color:red; }

h2 { color:green; }

.plain .class1 { color:magenta; }
```

i. `<div id="content"><h2>Hello World!</h2></div>` L
ii. `<div id="division"><h1>Hello World!</h1></div>` B
iii. `<div class="plain"><h2 class="class1">Hello World!</h2></div>` G
iv. `<div><p>Hello World!</p></div>`

2. Discuss the significance of CSS Box Model in Web Layout Design. How box-sizing property calculates the size of the box?
3. Design the following layout using Bootstrap grid system for the medium screen size and above. Also, write media query for printers such that the design should not print the images, the text should be in black color with white background. Write the appropriate CSS along with it.



Question# 03. [CLO-2] [2+4+4 = 10 Marks]

1. Write Regular expression to validate the format of COMSATS students' registration number.
2. Write the output of the following code.

```
<p id="demo"></p>

<script>
const numbers = [5, 2, 4, 5, 40];

let result = numbers.reduceRight(myFunc);

document.getElementById("demo").innerHTML = result;

function myFunc(result, num) {
  return result / num;
}
</script>
```

3. Use JavaScript to generate a random questionnaire list such that the questions are stored in an array. The questions are listed as ordered list and whenever a user clicks on "**Next Question**" a random question is selected from the array and inserted as a list item dynamically in the original ordered list, thus displaying the questionnaire, as shown.

Questions

7. How Web 2.0 is different from Web 1.0?

Next Question

Good Luck