

Ahmadu Bello University, Zaria
Department of Computer Science

2016/2017 First Semester Examination
COSC 307: Web Application Engineering I

Date: March 2017

Time Allowed: 120 Minutes

Instructions:

1. Attempt ANY FOUR questions.
2. Write all your answers in the spaces provided on this Question Paper.

Invigilator's Signature:

Registration Number: Signature:

Date : Time:

Scores:

Question	Maximum Scores	Scores Obtained
1	15	
2	15	
3	15	
4	15	
5	15	
6	15	
Total	60	

FILL IN THE QUESTIONS YOU ANSWERED IN THE BOXES BELOW

Questions Answered:				
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1a) Write a JavaScript function that accepts a single parameter and returns the multiplication times-table up to that number. For example, if the function is called with 3 as parameter, it returns the table below. [10 Marks]

1*1=1	2*1=2	3*1=3
1*2=2	2*2=4	3*2=6
1*3=3	2*3=6	3*3=9

1b) Write a function in JavaScript that displays the current day in a dialog box. For example, if today is Monday, the function should display Monday in a dialog box. [5 Marks]

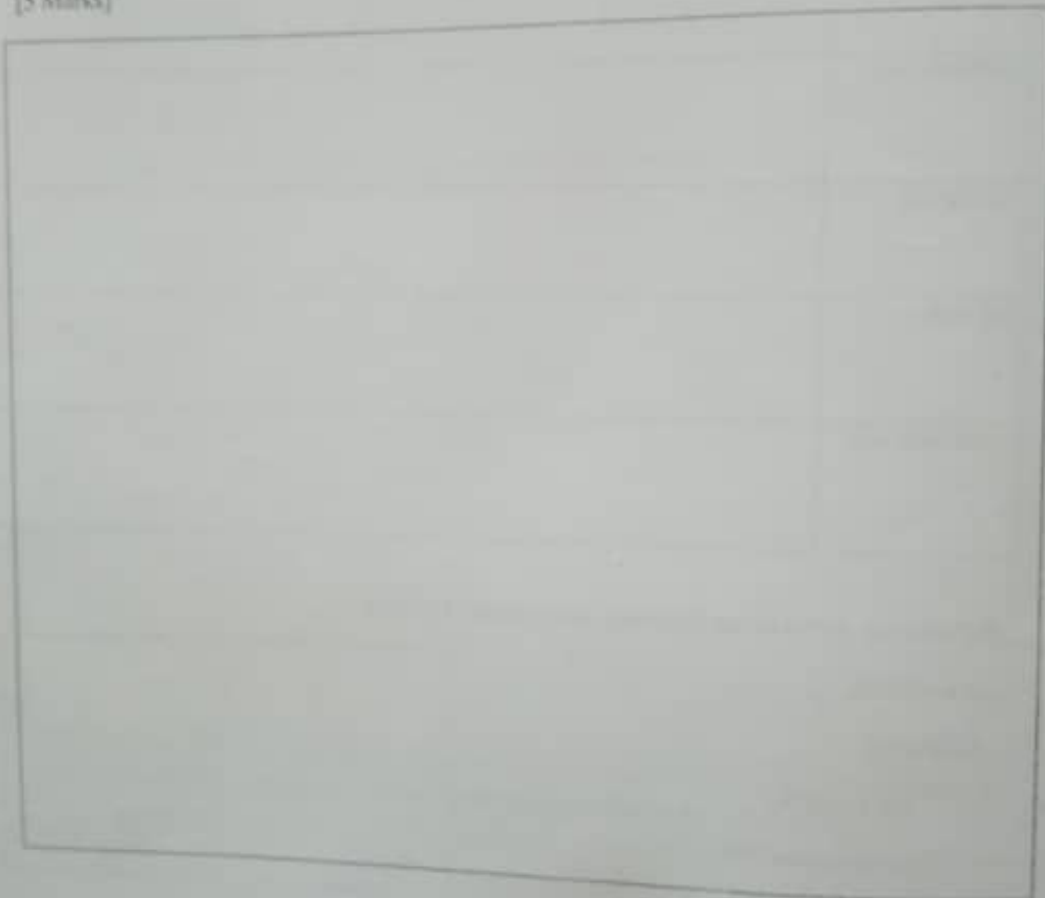
2a) Briefly give a description of the kind of events that cause the following handlers to fire in the space provided below [5 Marks]

onFocus	
onMouseOut	
OnSubmit	
onLoad	
onMouseOver	

2b) Write the output of the following code snippet [5 Marks]:

```
var x=42457;
while(x>2){
    var y=x%10;
    x=parseInt(x/10);
    document.write(y + " ");
}
```

2e) A Fibonacci sequence is a series of numbers in which each number (Fibonacci number) is the sum of the two preceding numbers. The simplest is the series 1, 1, 2, 3, 5, 8, 13, 21, etc. Write the JavaScript code to generate the first 50 Fibonacci numbers in the series. Do not use recursion [5 Marks]



3) Write the HTML/CSS code to generate the following page snippet. Do not use tables, and all styles should be inline [15 Marks]



1 point (1 mark)



1 point (1 mark)



1 point (1 mark)



1 point (1 mark)

Minutes

4a) Write the HTML Code to generate the form below: [5 marks]

• REG NO:	<input type="text"/>
• Courses:	<input type="checkbox"/> COSC 111 <input type="checkbox"/> COSC 222 <input type="checkbox"/> COSC 333
• Extra Detail:	<input type="text"/>

4b) Write the JavaScript code to validate input received from the form defined in (4a) according to the following parameters; [10 marks]

- Registration number should be of the form CS2017L300, and validated using regular expressions
- The program should iterate over all checkboxes ensuring at least one is checked
- The program should also ensure the field for extra detail is non-empty
- The program should alert an appropriate message if any of the criteria above is not met

ates

5) Write the HTML code to generate the following table [15 Marks]:

w			w	w
w	w	w	w	
w		w	w	
w				w

6a) Provide a brief description of the following CSS properties in the space provided below [5 Marks:

Margin	
Padding	
Z-index	
Font-weight	
Font-style	

b) When does a conflict occur in CSS and what are its resolution mechanisms [5 Marks]

c) Study the following code and answer the questions that follows: [5 Marks]

```
<html><head><style>
div{
    color: purple;
}
span{
    color: red;
}#q1{
    color: green;
} q2{
    color: orange;
}</style>
<body>
<div>
<span class='q2' id='q1'>Loremipsum</span>
</div>
</body></html>
```

i) What is the color of the text 'Loremipsum'? [2.5 Marks]

ii) What is the difference between 'div' and 'span'? [2.5 Marks]