



# **MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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## **University Examinations 2013/2014**

### **STAGE 5, EXAMINATION FOR DIPLOMA/CERTIFICATE IN INFORMATION TECHNOLOGY**

#### **DIT 0503: WEB DEVELOPMENT II**

**DATE: APRIL 2014**

**TIME: 1½ HOURS**

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**INSTRUCTIONS:** *Answer questions **one** and any other **two** questions*

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#### **QUESTION ONE - (30 MARKS)**

- a) Explain the importance of using scripting languages in web programming. (4 marks)
- b) Outline the request / response process between a web browser and a web server when the browser requests information from the server. (4 marks)
- c) Explain the following terms: (4 marks)
  - i. DOM
  - ii. BOM
  - iii. Loosely typed
  - iv. Strongly typed
- d) Differentiate between Client side Scripting and Server Side Scripting. (2 marks)

- e) There three ways of embedding JavaScript in HTML. Using examples explain. (6 marks)
- f) What is scripting? List at least one server side scripting Language and one Client side scripting Language. (3 marks)
- g) By use of examples explain three types of JavaScript Data types. (6 marks)
- h) Explain how keyword var is used. (1 mark)

**QUESTION TWO (15 MARKS)**

- a) Design a Javascript code to input a number then use a function to calculate the square of the number entered. (5 marks)
- b) Draw the Graphical User Interface (GUI) for the following successful code: (5 mark)

```

< html>
<head > < title< printing Output </title > </head>
<Body bgcolor = "yellow" text = "blue">
<big>
<b>Comparing the <em>document.write </em>and
<em> document.writeln</em>methods </b> < br/>
<script>
document.write ("one,");// No newline
document .writeln("Two,");
document .writeln("Three,");
</script>
<pre>
<script>
document.write ("slam
document .writeln("Bang,");
document .writeln("Dunk!");
</script>
</pre>

```

```
</big>  
</body>  
</html>
```

- c) Write a program to prompt a user for age. If the age is less than 18 a message box is displayed with the message “**under age- you cannot proceed**” else a message “You can proceed” is displayed. (3 marks)
- d) If x is assigned the value of 10, what is y in the following two statements: (2 marks)

```
y= --x;
```

```
y = x--;
```

### QUESTION THREE (15 MARKS)

- a) Using examples explain how the following methods are used: (6 marks)
- Prompt** method
  - The **confirm** ( ) method
  - The **alert** ( ) method
- b) Explain the following terms in relation to functions: (6 marks)
- Function Call
  - Function Definition
  - Passing Arguments
- c) Using examples describe how you use comments in Javascript. (3 marks)

### QUESTION FOUR – (15 MARKS)

- a) By use of syntax explain the following Javascript looping Structures. (6 marks)
- While
  - For
  - Do/while
- b) Rewrite the following function using a switch statement instead of a cascading if statement (3 marks)

```
function assignTeacher (age) {  
    var teacher ;  
    if (age == 10)  
        teacher = "Mrs.Smith ";  
    else if (age == 12)  
        teacher = "Mrs. Sanders";  
    else  
        teacher = "Mr. Roberts";  
    alert ("You have been assigned to : "+ teacher );  
}
```

c) List at least 6 Javascript events and say when they are invoked. (6 marks)

**QUESTION FIVE (15 MARKS)**

a) Consider the following web page layout:

Write a Javascript code that can produce the above confirm dialog box.

(3 marks)

b) By use of syntax, explain the following Javascript conditional structures. (8marks)

- **If statement**
- **If...else statement**
- **If...else if...else statement**
- **Switch statement**

c) Using examples differentiate between document.write () and document.writeln() methods as used in Javascript. (4 marks)