



*Knowledge for Development)*

**KIBABII UNIVERSITY**

**UNIVERSITY EXAMINATIONS  
2021 /2022 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATIONS  
YEAR TWO SEMESTER TWO**

**FOR THE DEGREE OF  
BACHELOR OF COMPUTER SCIENCE**

**COURSE CODE : CSC 213**  
**COURSE TITLE : APPLICATION  
DEVELOPMENT FOR THE INTERNET**

**DATE: 01/02/2022**

**TIME: 09.00 A.M – 11.00 A.M.**

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**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTIONS ONE AND ANY OTHER TWO.**

a. An imagemap is a graphical image that contains multiple clickable areas or "hotspots" that can be linked to different URLs or actions.

- b. -Modularity and Reusability  
-Efficiency and Performance  
-Ease of Maintenance

- e.  
-Reduced Server Load  
-Dynamic User Experience  
-Enhanced User Interface

c. `<link rel="stylesheet" type="text/css" href="styles.css">`

- f.  
-break  
-continue  
-go to  
-exit

- g.  
-radio  
-checkbox  
-text  
-number  
-password

### QUESTION ONE (COMPULSORY) [30 MARKS]

- a) Define imagemap? [2 marks]  
b) What is the use of external linking of style sheets? [3 marks]  
c) Use a code segment to illustrate external linking of style sheets. [4 marks]  
d) What is the difference between absolute positioning and relative positioning in CSS? [4 marks]  
e) What is the need of client-side scripting? [3 marks]  
f. With the aid of examples describe the three forms of control statements available in javascript? [6 marks]  
g. Explain various form input tags with examples [6 marks]  
h. Write a code segment that distinguishes div from span tag [3 marks]  
i. Explain the working of image tag with an example [3 marks]  
j. What is the function of alert boxes in Javascript, illustrate using a code [4 marks]

i. The `<img>` tag in HTML is used to display images on a web page.

``

### QUESTION TWO [20 MARKS]

a. Write a javascript code segment that displays a triangle shown in the figure below

[6 marks]

declaring a variable

- let  
-const  
-var

Different ways to display an output in js:

- console.log();  
-document.write();  
-alert();

0 1 2 3 4 5

1 2 3 4 5

2 3 4 5

3 4 5

4 5

5

```
for (let i=0; i<=5; i++){  
  let output='';  
  for (let j=0; j<=5; j++){  
    output+='';  
  }  
  for (let k=i; k<6; k++){  
    output+=k;  
  }  
  console.log(output);  
}
```

b. Write program using HTML, CSS and Java script that will prompt the user to key in three number and return the largest.

[8 marks]

### QUESTION THREE [20 MARKS]

- Explain what you understand by the term control structures in javascripts. Using code segments explain the various control structures used in Javascript. [6 marks]
- Write a code segment that prompts the user to key in three numbers and eventually returns the mean or average value to the user. [6 marks]
- Convert the "if else source code" below into a switch [8 marks]

```
let today = new Date().getDay();
```

```
if (today == 0) {  
    console.log("Sunday!");  
}  
else if (today == 1) {  
    console.log("Monday!");  
}  
else if (today == 2) {  
    console.log("Tuesday!");  
}  
else if (today == 3) {  
    console.log("Wednesday!");  
}  
else if (today == 4) {  
    console.log("Thursday!");  
}  
else if (today == 5) {  
    console.log("Friday!");  
}  
else {  
    console.log("Saturday!");  
}
```

Check Largest number

Enter Number 1:

Enter Number 2:

Enter Number 3:


submit

- c. Write a code segment of function in Javascript that prompts the user to enter a number and ascertain whether it's a prime number or not. **[6 marks]**

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <h1>Check Largest Number</h1>
  <br>

  <label for="">Enter Number1:
    <input type="number" id="num1">
  </label><br><br>

  <label for="">Enter Number2:
    <input type="number" id="num2">
  </label><br><br>

  <label for="">Enter Number3:
    <input type="number" id="num3">
  </label><br><br>
  <input type="submit" onclick="myFuction()">

  <script> function myFuction(){
    var num1=document.getElementById("num1").value;
    var num2=document.getElementById("num2").value;
    var num3=document.getElementById("num3").value;

    if(num1>num2 && num1>num3){
      alert(num1+"Is the Largest");
    }
    else if(num2>num3 && num2>num3){
      alert(num2+"Is the Largest");
    }
    else{

```



#### QUESTION FOUR [20 MARKS]

- a. The figure below shows scores by a second year computer science student. Write a program that prompts the user to key in a score and then displays the appropriate grade to the user

[8 marks]

CSC 213	CSC 210	CSC 211	CSC 212	CSC 214
40	50	60	70	80

- b. Differentiate the Do While from the While loop using a code segment. [6 marks]
- c. Explain the creation of frames in HTML, write a code to display a frame using HTML

[6 marks]

#### QUESTION FIVE [20 MARKS]

- a. i. What is a CSS rule?  
ii. Write a code to show how the rule above applies. [4 marks]
- b. Write a code and explain the various ways to apply CSS styles to a web page? [6 marks]
- c. Compare between window.onload and onDocumentReady? [8 marks]
- d. Differentiate between undeclared and undefined variables? [4 marks]