



KISII UNIVERSITY

UNIVERSITY EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

FIRST SEMESTER 2022/2023
[SEPTEMBER-DECEMBER, 2022]

BIT 202: WEB PROGRAMMING I

STREAM: Y2S1

TIME: 2 HOURS

DAY: WEDNESDAY, 12:00 – 2:00 PM

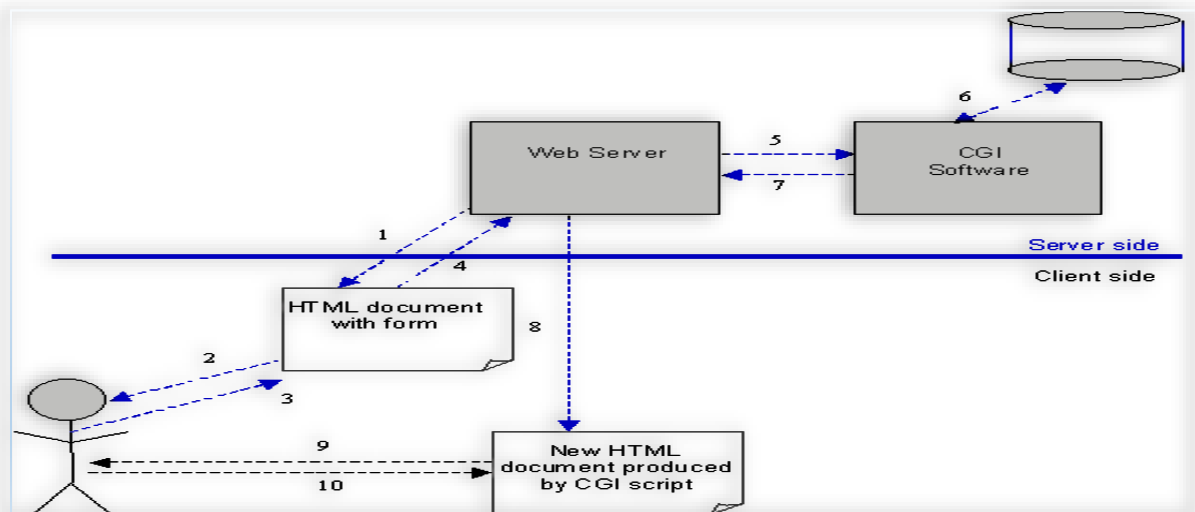
DATE: 21/12/2022

INSTRUCTIONS

1. Do not write anything on this question paper.
2. Answer question ONE and any other TWO questions.

QUESTION ONE

Study the following diagram and answer the question that follows



- a. Explain what happens in each step in the above diagram when processing a form. Your explanation should contain pieces of program code to explain your answer (10 marks)
- b. Explain with an example why JavaScript is an event driven scripting language (5 marks)
- c. Is a relational operator, such as \leq , used in the same kind of expressions as a logical operator, such as $\&\&$? Explain (5 marks)

- d. Write a function which, given the two numbers as parameters, returns whether the first is 2 larger than the second. The returned value will be a boolean. (10 marks)

QUESTION TWO

- a. Explain what the following function does in JavaScript
What does the following JavaScript function do?

```
function refresh() {  
    location.reload();  
}
```

 (5 marks)
- b. Explain why it is good programming practice to initialize variables in JavaScript after declaration (5 marks)
- c. By default, text hyperlinks are blue and underlined. How would you overwrite this default style so that hyperlinks were black and not underlined, irrelevant of whether the links have been visited or not? (10 marks)

QUESTION THREE

- a. Use an example to explain how type conversion is done in JavaScript (5 marks)
- b. Use a simple example to show how a switch statement in JavaScript is used in decision making (10 marks)
- c. Discuss any five factors one should consider when designing a website (5 marks)

QUESTION FOUR

- a. Design a form in HTML that can be used remotely for the registration of students. Your form should show which methods are used in the process (10 marks)
- b. Why do we need variables in a JavaScript program? Explain how they are used throughout a program. (10 marks)

QUESTION FIVE

- a. What will be the output, if the javascript code is executed

```
var x = 1324; var y = new Number(1324); if( x === y) alert("Yes"); else alert("No").
```


Explain (5 marks)
- b. What are events? Explain various events used in JavaScript with example. (5 marks)
- c. Enumerate the differences between Java and JavaScript? (5 marks)
- d. What is difference between session register () and \$_session in PHP? (5 marks)