



**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR JANUARY/APRIL 2023/2024 CERTIFICATE IN INFORMATION  
TECHNOLOGY / DIPLOMA IN INFORMATION & CYBER SECURITY**

**RCT 006: WEB APPLICATIONS**

**RCS 024: WEB DEVELOPMENT**

**DATE: 12<sup>TH</sup> APRIL 2024**

**TIME: 2 HOURS**

**GENERAL INSTRUCTIONS:**

Students are NOT permitted to write on the examination question paper during exam time.

This is a closed book examination. Text book/Reference books/notes are not permitted.

**SPECIAL INSTRUCTIONS:**

This examination paper consists Questions in Section A followed by section B.

Answer Question 1 and any Other Two questions.

QUESTIONS in ALL Sections should be answered in answer booklet(s).

- 1. PLEASE start the answer to EACH question on a NEW PAGE.**
- 2. Keep your phone(s) switched off at the front of the examination room.**
- 3. Keep ALL bags and caps at the front of the examination room and DO NOT refer to ANY unauthorized material during the course of the examination.**
- 4. ALWAYS show your working.**
- 5. Marks indicated in parenthesis i.e. ( ) will be awarded for clear and logical answers.**
- 6. Write your REGISTRATION No. clearly on the answer booklet(s).**
- 7. For the Questions, write the number of the question on the answer booklet cover page in the order you answered them.**
- 8. DO NOT use your PHONE as a CALCULATOR.**
- 9. YOU are ONLY ALLOWED to leave the exam room 1hour to the end of the Exam.**
- 10. DO NOT write on the QUESTION PAPER. Use the back of your BOOKLET for any calculations or rough work.**

## SECTION A (COMPULSORY)

### QUESTION ONE (30 Marks)

- a) Differentiate between Local Area Network and Wide Area Network. **(2 marks)**
- b) Explain the following CSS selector options
- i. Name selector
  - ii. ID selector
  - iii. Class selector **(3 marks)**
- c) Write a JavaScript program to implement a function **Multiply Numbers**, that multiplies two numbers and returns the results. **(5 marks)**
- d) Explain **Four** uses of the internet in the education sector. **(4 marks)**
- e) Differentiate between the front-end and back-end parts of a web application. **(2 marks)**
- f) Discuss the following stages of web application development
- i. Analysis,
  - ii. Design,
  - iii. Development,
  - iv. Testing and review,
  - v. Deployment,
  - vi. Maintenance **(6 marks)**
- g) Explain the use of the following HTML tags.
- i. <form>
  - ii. <button>
  - iii. <table>
  - iv. <image> **(4 marks)**
- h) Explain the effect of each of the following CSS script on a form's input elements.
- ```
input {  
width: 50%;  
border: 5px solid green;  
background-color: yellow;  
font-size: 18px;  
}
```
- (4 marks)**

## SECTION B (Answer ANY Two Questions)

### QUESTION TWO (15 marks)

- a) List any **Five** events that can trigger the execution of a JavaScript code. **(5 marks)**
- b) Differentiate between the **internet** and **intranet**. **(2 marks)**

- c) Write a script that would output the following nested list using the appropriate html tags.
1. Domestic animals
    - a. Cow
    - b. Sheep
  2. Wild animals
    - a. Lion
    - b. Elephant
- (6 marks)
- e) Differentiate between cell padding and cell spacing as used in HTML (2 marks)

**QUESTION THREE (15 Marks)**

- a) Explain the use of the following dialog boxes in Javascript
- i. Alert box
  - ii. Prompt box
  - iii. Confirm box
- (3 marks)

- b) Write the HTML script that would generate the following table below

| Web Development CAT Marks |         |       |      |
|---------------------------|---------|-------|------|
| Student Name              | Reg No. | CAT 1 | CAT2 |
| Peter                     | A0001   | 20    | 15   |
| Judy                      | A0002   | 19    | 18   |
| Richard                   | A0003   | 22    | 14   |

(5 marks)

- c) Explain the following attributes of form's input elements.
- i. Readonly
  - ii. Autofocus
  - iii. Required
  - iv. Placeholder
  - v. Multiple
- (5 marks)
- d) State **Two** layout overflow options in CSS. (2 marks)

**QUESTION FOUR (15 Marks)**

- a) Differentiate between relative path name and absolute path name. (2 marks)
- b) List **Six** input elements that can be used on a HTML form. (6 marks)
- c) Explain the following methods of inserting a style sheet in CSS.
- i. Internal
  - ii. External
- (2 marks)

d) Explain the outcome of each of the following CSS statements

```
table, th, td { border: 1px solid black; }
```

```
a:visited { color: green; }
```

```
h1, h2, p { text-align: center; color : blue; }
```

**(3 marks)**

e) Write a JavaScript statement that displays your name on a heading 1 element that has an ID **myname** **(2 marks)**

### QUESTION FIVE (15 Marks)

a) Discuss **Three** risks that internet users can be exposed to. **(6 marks)**

b) Explain the following terms

i. Uniform resource locator

ii. Domain name server


**(2 marks)**

d) Write a HTML code that can generate the following form

## Members Registration Form

Member Full Name:

E-mail:

Date of Birth:  

Attach the National ID:  No file chosen

**(7 marks)**