THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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# **GABA CAMPUS - ELDORET**

A. M. E. C. E. A

# MAIN EXAMINATION

## SEPTEMBER – DECEMBER 2021 TRIMESTER

# FACULTY OF SCIENCE

### DEPARTMENT OF COMPUTER AND INFORMATION SCIENCE

# DIPLOMA IN INFORMATION TECHNOLOGY

### DIT 004: INTRODUCTION TO PROGRAMMING METHODOLOGIES

Date:December 2021Duration: 2 HoursInstructions:Answer Question ONE and any other TWO Questions

#### **QUESTION ONE**

| i) Explain the following t   | erms                     |             |  |  |
|--|--------------------------|-------------|--|--|
| a) Computer p  | rogramming               | (2 marks)   |  |  |
| b) A computer  | program                  | (2 marks)   |  |  |
| c) Computer F  | rogrammer                | (2 marks)   |  |  |
| d) Algorithm   | (                        | (2 marks)   |  |  |
| e) Text Editor   | (                        | (2 marks)   |  |  |
| ii) Write a simple program to display Hello world in C,JAVA and PYTHON |                          |             |  |  |
| programming Langua   | ges                      | (10 marks)  |  |  |
| iii) What's Data Types ex  | plain                    | (3 marks)   |  |  |
| iv) List five examples of (  | C and Java Data Types    | (5 marks)   |  |  |
| v) Explain what you unde   | erstand about Variables  | (2 marks)   |  |  |
|  |                          |             |  |  |
| QUESTION TWO   |                          |             |  |  |
| i) Define Decision making  | statements in programmin | g (3 marks) |  |  |
| ii) Draw a flow chat to illustrate Decision making                     |                          | (6 marks)   |  |  |
| iii) List five types of loops  |                          | (5 marks)   |  |  |
| iv) Define Computer Programming – Characters                           |                          | (2 marks)   |  |  |
| v) Define an array   |                          | (2 marks)   |  |  |
| vi) Define computer progran  | nming string             | (2 marks)   |  |  |

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Page 1

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#### **QUESTION THREE**

| QUL(          |  |                 |  |  |
|---------------|--|-----------------|--|--|
| i)            | Define computer programming Loops  | (3 marks)       |  |  |
| ii)           | ii) Write a code in C programming to print hello world five times        |                 |  |  |
|               |  | (10 marks)      |  |  |
| iii)          | Write a general form of a loop statement in most of                      | the programming |  |  |
|               | languages  | (7 marks)       |  |  |
|               |  |                 |  |  |
| QUESTION FOUR |  |                 |  |  |
| i)            | ) Define Computer Programming – Keywords and give seven examples of java |                 |  |  |
|               | keyword  | (10 marks)      |  |  |
| ii)           | Define a Computer Programming – Operators and list seven                 | examples of     |  |  |
|               | Arithmetic Operators   | (10 marks)      |  |  |

## **QUESTION FIVE**

| i)   | Define flowchart  | (2 marks) |
|------|---|-----------|
| ii)  | ) List and draw elements of a flowchart in computer programming |           |
|      |   | (8 marks) |
| iii) | List and explain four types of programming languages            |           |
|      |   | (4 marks) |
| iv)  | List and explain five main programming language                 | (4 marks) |
| v)   | Define pseudocode?  | (2 marks) |

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