

**W1-2-60-1-6**

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

# **UNIVERSITY EXAMINATIONS 2016/2017**

FIRST YEAR SECOND SEMESTER EXAMINATION FOR THE DIPLOMA IN INFORMATION TECHNOLOGY/ BUSINESS INFORMATION TECHNOLOGY

**DIT 0202 : INTRODUCTION TO PROGRAMMING AND ALGORITHMS /PROGRAMMING CONCEPTS**

**DATE: APRIL 2017 TIME: 1.30 HOURS**

**INSTRUCTIONS:**

**ANSWER QUESTION ONE (SECTION A)[COMPULSORY] AND ANY OTHER TWO QUESTIONS**

**==========================================================**

**SECTION A [COMPULSORY]**

**QUESTION ONE**

1. Define the term “structural programming” [2 marks]
2. State and explain any four basic data types used in c programming [8 marks]
3. Write a code in C that display your name and admission number [5 marks]
4. Give the general algorithm for a program that divider two numbers (note it should test to ensure the divisor is not 0). [5 marks]

**SECTION B - CHOOSE ANY TWO QUESTIONS**

**QUESTION TWO**

1. Using a suitable diagram, explain the switch case flow diagram [8 marks]
2. Identify the errors in the following code

#include <stdio>

Int man

{

Print f “hello world!”

Return o [5 marks]

1. Give the steps of creating and running a C program [7 marks]

**QUESTION THREE**

1. (i)Discuss the characteristics of a good algorithm [3 marks]

(ii)State the method for developing an algorithm [4 marks]

1. Structural programming has three types of control structure Name and explain them using appropriate examples [6 marks]
2. Write a code that picks two numbers from a user, adds and displays the sum [7 marks]

**QUESTION FOUR**

1. Explain the use of the following key words
2. Type d.e.f
3. Goto
4. Enum
5. Const
6. Clear [5 marks]
7. Differentiate between local and global variables [2 marks]
8. Explain the following storage classes as used in C programming
9. Auto
10. Register
11. Static
12. Extern [8 marks]
13. Using any small code in c programming show the way a while loop operates [5 marks]

**QUESTION FIVE**

1. Discuss any five data structures used in structured programming [10 marks]
2. Write a code that calculates the area of a circle . The code should prompt users to enter the radius and display the area. [10 marks]