(Knowledge for Development)

KIBABII UNIVERSITY

(KIBU)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

END OF SEMESTER EXAMINATION

2021/2022 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER EXAMINATION

FOR THE DIPLOMA IN

(INFORMATION TECHNOLOGY)

COURSE CODE: DIT 066

COURSE TITLE: PROCEDURAL PROGRAMMING

DATE: 19/05/2022   TIME: 9.00 A.M. – 11.00 A.M.   2HRS

INSTRUCTIONS TO CANDIDATES:

ANSWER QUESTION ONE AND ANY OTHER TWO.

QUESTION ONE [24 MARKS]-COMPULSORY

a) Define the following terms as used programming

   i. procedural programming   (2mks)

   ii. source code   (2mks)

   iii. object code   (2mks)

b) Give any three characteristics of Cpp programming language   (3mks)

c) Differentiate between a high level and low level programming languages   (3mks)

d) Below is a sippet of a c plus programming language. State the function of each lie of code.
           (4mks)

```
1.  include<iostream>
2.  int main()
    {
3.    Cout("hello world");
4.    return 0;
    }
```

e) Write any two rules one should observe when declaring variables   (2mks)

f) Write a C ++program that calculates the volume of a cuoid using a function.   (6mks)

QUESTION TWO [18 MARKS]

a) Outline four differences between a procedural programming ad object oriented programming.
           (4mks)

b) Differentiate between formal and actual parameters.   (4mks)

c) Write a C ++ program that calculates the volume of a sphere using a function.   (10mks)

QUESTION THREE [18 MARKS]

a) Using a example show two ways in which one can declare constants in C ++.   (4mks)

b) Write a C++ program using a do.. while loop to count from 10 to 50.   (6mks)

c) Write a C++ program using a function to calculate area and circumference of a circle.

  (8mks)

QUESTION FOUR [18 MARKS]

a) Explain two methods of writing comments C ++.   (4mks)

b) Write a C++ program using a for loop to count from 20 to 1.   (6mks)

c) Write a C++ program using a function to calculate surface area of a cylinder.   (8mks)

QUESTION FIVE [18 MARKS]

a) Define the following terms as applied C++

    i) array   (2mks)

    ii)Preprocessor directive   (2mks)

    iii) reserved word   (2mks)

b) Differentiate between call by value and call by reference.   (4mks)

c) Give the results of the following code line 1,2 ad 3   (3mks)

```
main() {
  int a = 21;
  int c ;
c = a++;
  cout << "Line 1 << c << endl ;
  cout << "Line 2:" << a << endl ;
  c = ++a;
  cout << "Line 3:" << c << endl ;
  return 0;
}
```

d) Write a C program that calculates the area of a triangle   (5mks)