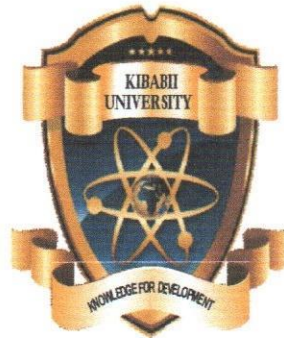


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*(Knowledge for Development)*

**KIBABII UNIVERSITY**

**(KIBU)**

**UNIVERSITY EXAMINATIONS**

**2019/2020 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATIONS**

**YEAR TWO SEMESTER TWO EXAMINATIONS**

**FOR THE DIPLOMA IN**

**(INFORMATION TECHNOLOGY)**

**COURSE CODE : DIT 077**

**COURSE TITLE: OBJECT ORIENTED  
PROGRAMMING**

**DATE: 06/11/2020**

**TIME: 2.00 P.M. – 5.00 P.M.**

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**INSTRUCTIONS**

**ANSWER QUESTION ONE AND ANY OTHER TWO**

### QUESTION ONE (COMPULSORY) [24 MARKS]

- a.
- i. define the term computer program [2 marks]
  - ii. state and explain any three major families of programming languages giving examples of each [6 marks]
- b. define the following terms as use in object oriented programming [6 marks]
- i. object oriented programming
  - ii. object
  - iii. class
  - iv. abstraction
  - v. polymorphism
  - vi. inheritance
- c. state any four advantages of encapsulation [4 marks]
- d. What is data type, list any four data types use in in java? [6 marks]

### QUESTION TWO 18 MARKS

- a. Write a java program that displays “**My University name is Kibabii University**” on the computer screen. The name of the class is **MyJavaProgram**. [5 marks]
- b. Define the term a variable and describe two types of variables used in java [4 marks]
- c. Write a java program that performs the following arithmetic operations and displays the results on the screen: [9 marks]
- i. Adds 20 to 10
  - ii. Subtracts 10 from 20
  - iii. Multiplies 20 and 10
  - iv. Finds the modulus of 20 and 10

### QUESTION THREE 18 MARKS

- a. State and explain any three loop control mechanisms in java [6 marks]
- b. differentiate between declaration and initialization [2 marks]
- c. study the for loop java program below:

```
public class test{
public static void main(string args[])
for(int x =10; x <20; x = x+1){
System.out.print("value of x : "+ x );
System.out.print("\n");
}
}
```

}

- i. Identify the errors in the program and re-write the programming correcting the errors [5 marks]
- ii. Write the results that will be displayed on the screen [5 marks]

**QUESTION FOUR 18MARKS**

- a. State and explain any five data types giving examples of each [10marks]
- b. Other than arithmetic operators describe any other four operators used in java [8 marks]

**QUESTION FIVE 18MARKS**

- a. State and explain any two decision making statements in java [4 marks]
- b. Write the syntax of each of the following statements: [8 marks]
  - i. The if...else Statement:
  - ii. The if...else if...else Statement:
- c. Differentiate between the following terms as use in java [4 marks]
  - i. Superclass and subclass
  - ii. Method and instructor
- d. State an explain any two types of inheritance relationships [4 marks]