



*(Knowledge for Development)*

**KIBABII UNIVERSITY**  
**(KIBU)**

**UNIVERSITY EXAMINATIONS**  
**2019/2020 ACADEMIC YEAR**

**SUPPLEMENTARY/SPECIAL EXAMINATIONS**  
**YEAR TWO SEMESTER TWO EXAMINATIONS**

**FOR DIPLOMA IN**  
**(INFORMATION TECHNOLOGY)**

**COURSE CODE : DIT 077**  
**COURSE TITLE : OBJECT ORIENTED PROGRAMMING**

**DATE:** 09/02/2021 **TIME:** 8.00 AM. - 10.00 A.M.

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**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTIONS ONE AND ANY OTHER TWO.**

### QUESTION ONE 24 MARKS –COMPULSORY

- a.
- i. Define the term computer program [2 marks]
  - ii. Briefly discuss the following families of programming languages  
Machine Language  
Assembly Language  
High Level Languages [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 two pros and two cons 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 **two names** on the computer screen. The name of the class is **MyFirstJavaProgram**. [5 marks]
- b. Define the term a variable and describe two types of variables use in java [4 marks ]
- c. Write a java program that performs addition, subtraction, multiplication and modulus of the integers 30 and 15 , and write the results that will be displayed on the screen [9 marks]

### QUESTION THREE 18 MARKS

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

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

- i. Identify the errors in the program an 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 keywords used in Java, giving examples of each [10 marks]  
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 used in Java [4 marks]  
i. Superclass and subclass  
ii. Method and instructor  
d. State and explain any two types of inheritance relationships [4 marks]