



CRAWFORD UNIVERSITY, FAITH CITY, IGBESA

**COLLEGE OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF COMPUTER AND MATHEMATICAL SCIENCES
HARMATTAN SEMESTER
SESSION: 2021/2022**

COURSE CODE: CSC415

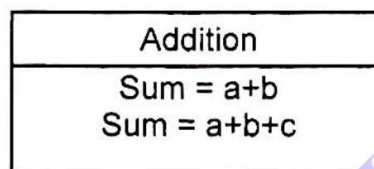
COURSE TITLE: OBJECT ORIENTED PROGRAMMING WITH JAVA

UNITS: 3

TIME: 3HOURS

SECTION A (ANSWER ALL)

- 1a. State five (5) differences between an interface and a class 5marks
b. Write a OOP java program to implement the below diagram. 5marks



- c. With a simple java program explain the term "Multiple Inheritance" 5marks

SECTION B ANSWER ANY THREE QUESTIONS

- 2a. Explain the following OOP concepts i. Abstraction ii. Encapsulation iii. Polymorphism iv. Interface
iv. Method overloading. 5marks

- b. Write a java program to perform the following on Class Student:

- i. Create a constructor that initializes the class members
ii. Another class that implements the constructor :

```
class Student{  
    String name;  
    int age;  
    int height;  
}
```

10marks

- 3a. Write a java function that receives two numbers as arguments. The function should divide the first number by the second. Don't divide by the second number if it's zero (Hint: use an if statement). 5marks

- b. Draw a typical diagram that shows the life cycle of an Android activity. 5marks

- c. List two major aspects of Object Oriented Programming that promotes software reuse 5marks

- 4a. Write the acronyms of the following i. SDK ii. JRE iii. JVM iv. API v. AVD 5marks
- b. Explain the following Android programming features i. Tethering ii. Messaging iii. Storage
iv. Hardware support v. Media support 5marks
- c. Write a recursive Java method to return the factorial of any integer number. 5marks

- 5a. State five (5) types of activity that can be added to an Android Application 5marks
- b. State three (3) reasons why the use of Java interface 3marks
- c. Write a Java recursive function program to add natural numbers between 1 to 500 8marks

- 6a. Explain the following i. Intent ii. Activities iii. Fragment. 3marks
- b. Write a java program to implement the below interface :

```
public interface Animal{  
    void color(){  
  
        }  
    void height(){  
  
        }  
}
```

7marks

- c. State five (5) android devices in market place. 5marks

Best of luck!!!!!!