

**National Open University of Nigeria**

**Plot 91, Cadastral Zone, NnamdiAzikiwe Expressway, Jabi - Abuja**

**Faculty of Sciences**

**NOVEMBER, 2018 EXAMINATIONS**

**COURSE CODE: CIT 383**

**COURSE TITLE: INTRODUCTION TO OBJECT-ORIENTED PROGRAMMING**

**CREDIT: 2 Units**

**TIME ALLOWED: 2 Hours**

**INSTRUCTION:Answer Question ONE (1) and any other THREE (3) Questions**

**QUESTION ONE**

1a Describe four (4) benefits of bundling code into individual software objects[**8marks]**

b. Explain in details what message passing entails and list the corresponding examples

**[10 marks]**

c. Describe in details the meaning of hiding fields in Java**[7 marks]**

**QUESTION TWO**

2. a. What is modularity? **[5 marks]**

b. With the aid of a well labelled diagram illustrate the concept of modular programming**[5 marks]**

c. State five (5) advantagesmodular programming**[5 marks]**

**QUESTION THREE**

3a. Give an explicit description of the term “Interface”within the context of Java programming language **[5 marks]**

b. Write a non-executable class that has a method. This method prints aline of text that reads “Object- Oriented Programming is superb”. **[7 marks]**

c. What is argument constructor? **[3 marks]**

**QUESTION FOUR**

4a. Create a class that has a **String** instance variable and an **int** instancevariable, in the class, create a constructor that has parameters that usesthese instance variables as its data.**[10 marks]**

b. List five(5) Java static predefined methods that are used to perform common mathematical calculations**[5 marks]**

**QUESTION FIVE**

5a. Define static method? **[3 marks]**

b. State and explain three (3) motivations for modularising a program into methods

**[6 marks]**

c. What is recursive method? Explain in detail **[6 marks]**