NATIONAL OPEN UNIVERSITY OF NIGERIA
14/16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
JUNE/JULY EXAMINATION

COURSE CODE: CIT383
COURSE TITLE: Introduction to Object-Oriented Programming
TIME ALLOWED: 2¹/₂ Hours.
INSTRUCTION: Answer any four (4) questions

1a. What is an inheritance in Object Oriented Programming? (6 marks)
1b. Differentiate between a Superclass and a Subclass (10 marks)
1c. List three main features of Object Oriented Programming? (9 marks)

2a. Explain the term " Object Oriented Programming Language" (5 marks)
2b. Give the full meaning of the following acronyms:
  (i)   WYSIWYG
  (ii)   OSI
  (iii)   PCS
  (iv)   RDO
  (v)   ADT
  (vi)   OOD
  (vii)   JVM
  (viii) API
  (ix)   DLSs
  (x)   SNMP

          (2 mark each)
3a. What do you understand by Operator Overloading? (4 marks)
3b. List and explain three key restrictions to overloading the conversion operators   (12 marks)
3c.List the three (3) logical operators that can be directly overloaded for a class   (9 marks)

4a.. What is the difference between a Class and an Object? (10 marks)
4b. What do you understand by the term methods?
        (5 marks)
4c. List five (5) examples of methods
(10 marks)

5a.   Explain   the   term   **"downcasting"** (5 marks)

5b. List and explain two main types of polymorphism. Give an example of each.   (8 marks)

5c. Enumerate, giving examples, any four (4) examples of Message passing styles   (12 marks)

6a. Write a short note on each of the following:

(i)   Overloaded   Method   and   Overridden   Method (5 marks)

(ii)   Local   Variables   and   Instance   Variables (5 marks)

(iii) Set and Get Methods

(5 marks)

6b. What do you understand by Recursive Operator

(4 marks)

6c. Mention the three (3) ways to call a method

(6 marks)