



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
University Village, Plot 91, Cadastral Zone,  
Nnamdi Azikiwe Expressway, Jabi, Abuja  
**FACULTY OF SCIENCES**

**2023\_1 POP EXAMINATION.**

<b>Course Code:</b>	CIT734
<b>Course Title:</b>	Object-Oriented Technology
<b>Credit Unit:</b>	3
<b>Time Allowed:</b>	2 ½ hours
<b>Instruction:</b>	Answer Question 1 and any other three (3) questions

- Q1 a. Define the following terms: (25 marks)  
(i) Class (9 marks)  
(ii) Object  
(iii) Method
- b. Explain the term Object Oriented Programming (OOP) (4 marks)  
c. List three Object Oriented Programming Languages. (3 marks)  
d. Describe the following OOP concepts: (9 marks)  
(i) Encapsulation  
(ii) Polymorphism  
(iii) Inheritance
- Q2 a. Differentiate between the three levels of class visibility in OOP (15 marks)  
b. Discuss three programming techniques.
- Q3 a. Describe the concept of method overriding? (15 marks)  
b. Explain the following terms: (3 marks)  
(i) Abstract Class (12 marks)  
(ii) Message  
(iii) Interface  
(iv) Constructors
- Q4 a. What is a variable? (15 marks) (2 marks)  
b. A variable is an item of data named by an identifier (8 marks)  
c. What are the advantages of using a symbolic constant rather than a literal constant? (5 marks)
- (15 marks)
- Q5 a. Outline the four major information eras (4 marks)

- b. Differentiate between Procedural Programming and Object-Oriented Programming in C++ (6 marks)
  - c. Describe the purpose of exception handling (2 marks)
  - d. Outline three limitations of Object-Oriented Programming (OOP) (3 marks)
- (15 marks)
- Q6. a. Discuss the distinct phases in the life cycle of computer-based systems (8 marks)
- b. List six (7) important qualities of software products (7 marks)