



NATIONAL OPEN UNIVERSITY OF NIGERIA

**UNIVERSITY VILLAGE, 91 CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI,
ABUJA
FACULTY OF SCIENCE
2023_1 POP EXAMINATION.**

COURSE CODE: CIT834

COURSE TITLE: Object Oriented Programming Using C#

CREDIT: 3 Units

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

QUESTIONS

- 1(a) State any five (5) properties of Static constructors (5 marks)
- (b) Using mass calculation as an example, how is a static method declared in C#? (7 marks)
- (c) Write a brief note on Data abstraction (3 marks)
- (d) Outline the stepwise procedure to build the C# samples (5 marks)
- (e) Analyze the role of garbage collection (5 marks)
- 2 (a) Explain how Microsoft.Net is standardized (5 marks)
- (b) Declare a static method with a formula to calculate the area of a parallelogram. Use value of your choice the call the method. (8 marks)
- (c) State the difference between a Constructor and a Destructor (2marks)
- 3 (a) Identify the relationship between polymorphism and object-oriented Programming (4 marks)
- (b) Compare and contrast encapsulation and data abstraction (5 marks)
- (c) Write a program to demonstrate Instantiating and Testing of a New Class. (6 Marks)

4(a) Identify 5 CLR features with their descriptions (5 marks)

(b) Demonstrate how a method can be defined to provide encapsulation (6 marks)

(c) Write codes to declare multidimensional indexer (4 marks)

5 (a) List the process of programming in an object oriented Language (5 marks)

(b) Justify the importance of inheritance in OOP (5 marks)

(c) Demonstrate the syntax for creating the constructor to an array (5 marks)

6 (a) Demonstrate how a method can be defined to provide encapsulation (6 marks)

(b) Identify the relationship between polymorphism and object-oriented Programming (4 marks)

(c) Describe with an example how a reference type is created with the class keyword (5 marks)