



NATIONAL OPEN UNIVERSITY OF NIGERIA

**UNIVERSITY VILLAGE, 91 CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI,
ABUJA**

**FACULTY OF SCIENCE
2021_2 EXAMINATION**

COURSE CODE: CIT834

COURSE TITLE: Object Oriented Programming using C#

CREDIT: 3 Units

TIME ALLOWED: 2½ Hours

INSTRUCTION: Answer Question ONE (1) and any other FOUR (4) Questions

1(a) Differentiate between a floating point number and double number (use example to illustrate your point. [4 marks]

(b) List the process of programming in an object oriented Language [3 marks]

(c) Give 5 properties of static constructors[5 marks]

(d) Demonstrate the relationship between polymorphism and object-oriented Programming [3 marks]

(e) Demonstrate syntactically the creation of methods in C# [3 marks]

(f) Give 4 CLR features with their descriptions [4 marks]

2(a) How can the properties of instantiated objects be accessed ?[4 marks]

(b) Justify the of method overloading [4 marks]

(c) Demonstrate with an appropriate example the concept of the state of an object [4 marks]

3(a) How useful are methods in C# [4 marks]

(b) Justify the importance of garbage collection in the process of object creation?[[marks]

(c) Give the following information about static property; (i) Condition for adding static property to a class (ii) condition for using a static property [4 marks]

4(a) Demonstrate syntactically the declaration of a binary operator and explain each line of the declaration [6 marks]

(b) Okon is a staff of a company and works with other staff in the company. His wages are paid according to the number of hours he works in a day. Perform an analogy of the file system using a procedural oriented language and an object oriented language on how Okon's information will be programmed for processing in a computer. [6 marks]

5(a) Create syntactically a new addition operator for the Vector class and instantiate two vector objects v1 and v2 with values of (10,16) and (4,18) respectively, add them together and give the result. [8 marks]

(b) Differentiate between a single inheritance and multiple inheritance [4 marks]

6(a) How is the standardization of Microsoft.Net accomplished ? [4 marks]

(b) Differentiate between a constructor and a destructor [4 marks]

(c) What are the requirements for Web services client application [4 marks]