**NATIONAL OPEN UNIVERSITY OF NIGERIA**
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI-ABUJA**
**FACULTY OF SCIENCE**
**DEPARTMENT OF COMPUTER SCIENCE**
**JANUARY 2021 EXAMINATION**

**COURSE CODE:** CIT736
**COURSE TITLE:** COMPUTER PROGRAMMING
**CREDIT UNIT:** 2
**TIME ALLOWED : 2HRS**
**INSTRUCTION:** ANSWER QUESTION ONE AND ANY THREE QUESTIONS

1. (a) Differentiate between computer program, computer programming, and computer programmer. **(6marks)**
   (b) What is a Binary numeral system? **(4 marks)**
   (c) Write an example of a programme structure in Fortran 90/95 program. **(5 marks)**

   (d) List and explain any 5 standard input and output routines supported in Pascal. **(5 marks)**

   (e) With suitable example, differentiate between REAL and INTEGER numbers. **(5 marks)**

**2.** (a) Briefly describe the role of debugging in computer programming project (**7 marks**)

   (b) Differentiate between Correcting Design-Time errors and Runtime errors (**8marks**)

3. (a) List and explain 5 types of errors known to you. **(10 marks)**
   (b) What is a Translator **(5 marks).**

4(a)  State and explain the general form of a computer program main unit (main program).
   **(10 marks)**
   (b) Briefly differentiate between the followings:  (5 marks)
     i. Assembler
     ii. Compiler

5. Using the FORTRAN 90/95, write a program that will compute and output the sum and product of three numbers. **(15 marks)**