NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWASY, JABI-ABUJA
FACULTY OF SCIENCES
DEPARTMENT OF COMPUTER SCIENCE

SEPTEMBER, 2020_1 EXAMINATIONS

COURSE CODE   : CIT 736
COURSE TITLE   : COMPUTER PROGRAMMING
CREDIT UNIT   : 2
TIME ALLOWED: 2 HOURS
INSTRUCTION   : ANSWER QUESTIONS 1(ONE) AND ANY OTHER THREE (3)

1a)   Given a three-dimensional array A(X,Y,Z). Write a two line FORTRAN

90/95 code that

i)   Determine the maximum value less than 5000 in this array.
(*6 marks)*

ii)   Computes the average value greater than 1000 in an array.
(*6marks)*

1(b) As a computer programmer, describe the steps you would adopt in dealing with errors emanating from program compilation and execution

(*5 marks)*

c.)   Enumerate the four compilers that are used to compile and execute a FORTRAN 90/95 programs. (*4 marks)*

1d.) Write down any four (4) standard Identifier in Pascal **(4 marks)**

2. (a) In a tabular form and with appropriate examples differentiate between programming languages and command languages? (*6 marks)*

(b) Analyze the different forms (data types) that values of variables assume in a program (*6 marks)*

c.) Describe the process you would adopt to desk-check the program you have

(*3 marks)*

3a)   Using suitable diagram, illustrate the process of language translation. (*8 marks)*

3b.)   Analyze the effect of the following FORTRAN statements:

i.   OPEN (UNIT = 6, FILE = 'great.dat', STATUS ='OLD', ACTION ='READ')
ii.   OPEN (UNIT = 8, STATUS ='SCRATCH', IOSTAT ='ierror')
iii. 20 FORMAT (8F6.3)
.   (*7 marks)*

4. a.) Given a typical program, what criteria would you use to assess the quality of the program? (*9 marks*)

   b) Write out the ten (10) steps to be followed when coding, compiling and executing a Fortran 90/95 program using MS-DEV (*6 marks*)

5.a.) Write a program in FORTRAN to find the total and product of three numbers "T, F, V" (*4½ marks*)

   b.) Using a given set of values (T=5, F=15, V=4) Desk-check the source code using the format (*2½ marks*)

   c) Characterize eight standard input and output routines and extensions supported by PASCAL (*8 marks*)