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)***