



**NATIONAL OPEN UNIVERSITY OF NIGERIA  
JABI FCT ABUJA  
FACULTY OF SCIENCE**

**CIT736: Computer Programming**

**TIME ALLOWED: 3Hours**

**INSTRUCTION(S): Attempt any Four (4) questions**

**Question 1**

- a) List and briefly discuss using appropriate examples of the different types of data types used in Pascal programming - **7.5 marks**
- b) As computer programmer, discuss any five features that satisfactorily qualify a program to be good - **10 marks**

**Question 2**

- a) In Programming language, when are case statement preferred to the IF statement  
**5marks**
- b) Differentiate between static and dynamic arrays **7.5 marks**
- c) Reserved words in Pascal have their standard and predefine meaning. List any ten of them  
**-5 marks**

**Question 3**

- a) As a student of programming, discuss in details any 6 programming methodologies that you know - **6 marks**
- b) Develop a program in FORTRAN to find the sum and product of 5 students TMA scores as follows score 1 =23, score 2= 27, score 3=29, score 4= 24, score 5= 28.  
**- 6.5 marks**
- c) Explain any five types of program errors that you know - **5 marks**

**Question 4**

- a) Explain the concept of modular programming **3.5 marks**
- b)
  - i. What are procedures and functions? **2 marks**
  - ii. How are procedures and functions interrelated? **2 marks**
- c) List and explain any 10 input and output routines in Pascal **10 marks**

**Question 5**

- a) State the format for the if ..then..else control structure in FORTAN Programming?  
**- 6 marks**
- b) Fortran 90/95 has so many features . List any 10 of them - **5 marks**
- c) Write a program in FORTRAN to convert centimetres into inches - **6.5 marks**