



EDO UNIVERSITY IYAMHO
Department of Computer Science
CMP 121: STRUCTURED PROGRAMMING USING FORTRAN

SECOND SEMESTER 2015/2016 EXAMINATION ACADEMIC SESSION

INSTRUCTIONS: ANSWER ANY FOUR QUESTIONS

TIME ALLOWED: 2 HOURS

1. With examples, explain the term **Variable**
 - 1b. Write a FORTRAN program that reads a user's age and then displays the following information according to the age of the user;
 - If age is below 18** – You are a child
 - If age is between 18 and 65** – You are an adult
 - If age is above 65** – you are a senior citizen
2. Every FORTRAN program must begin and end with
- 2b. Write a FORTRAN program to check a password entered by a user. Set the password to be 199604, if the user enters this correctly, let your program display "Welcome, you are logged in" else let your program display "Sorry try again"
3. What does the statement **implicit none** do in a FORTRAN program.
 - 3b. Design a Body Mass Index (BMI) calculator, your program should request from the user his height (m) and weight (kg). formula for BMI is $\text{weight (kg)}/\text{height}^2$
4. The roots of the quadratic equation is defined by the formula $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$, Write an application in FORTRAN that will evaluate and printout these roots
5. Write a FORTRAN program that will convert an amount entered in naira to its equivalent dollar value
6. Write a FORTRAN program that will request the user to enter three variables **length**, **breath**, and an **op** (peri, area). If the **op** entered is peri, your program should calculate and display the perimeter of a rectangle, if the **op** is area, your program should compute and display the area of the rectangle

