



MOSHOOD ABIOLA POLYTECHNIC, ABEOKUTA
DEPARTMENT OF COMPUTER SCIENCE
FIRST SEMESTER EXAMINATION 2022/2023 SESSION

COURSE TITLE: INTRO. TO COMPUTER PROGRAMMING

COURSE CODE: COM 113

CLASS: COMP. SCI. ND I (FT & PT)

UNIT: 3 Hours

TIME ALLOTTED: 3HRS

INSTRUCTION: 1. Attempt ANY FOUR Questions in SECTION A & ONE Question from SECTION B
2. Write only your matric number on the question paper, nothing else.

SECTION A

- 1(a) With the aid of diagram describe the major classification of computer software. (10marks)
- (b) Differentiate between *Syntax* and *semantics* as terminologies within the context of computer programming.
Hence list five (5) syntactic errors that can hinder a program from running. (10marks)
- 2(a) Expatriate on Five (5) reasons of studying Programming language. (10marks)
- (b) If $A = 4$, $B = 5$ and $C = 6$, to write a QBASIC program to calculate average of the numbers, describe commands to use to make first program Interactive and second program non-interactive. (10marks)
- 3(a) Like other real-life problems to be solved, software development requires systematic procedure to be followed to produce a professional software product that will meet users' need or expectations. Enumerate and briefly describe these procedures to justify your knowledge on software development. (12marks)
- (b) Function, constructs, expressive power and target are traits often considered important for constituting a programming language. Explain. (8marks)
- 4(a) In not more than three lines for each of the underlisted programming paradigms, justify your understanding on them: (i) Structured Programming (ii) Modular Programming (iii) Interactive Programming (iv) Graphical User Interface (GUI) (v) Object-oriented Programming (OOP). (15marks)
- (b) Differentiate between Polymorphism and Inheritance as fundamental concepts in OOP. (5marks)
- 5(a) Briefly describe the usefulness of the following tools in software development:
(i) Procedure charting (ii) Decision table (iii) Data flow diagram (iv) Data dictionary
(v) Pseudo code (10marks)
- (b) Identify the types of programming languages often represented by 1GL, 2GL, 3GL and 4GL and write short note on them to justify your understanding. (10marks)

SECTION B

QUESTION 1

- A. Draw and explain five (5) flowchart symbols that you know
- B. Write an algorithm and construct a flowchart to accept grade of a student using three (3) score
If the average score is less than 40, display "FAIL" else if the average score is greater or equal to 40 but less than 65, display "GOOD" else display "EXCELLENT".
- C. Hence write a QBasic program to implement the above problem

(20marks)

QUESTION 2

- A. Write and explain the structure of Visual Basic program.
- B. Write a Visual Basic program to calculate the sum of all even numbers between 0 and 100
- C. A book seller offers two rates of commission. If the price of a book is below N100, the rate is 12% of the price, otherwise it is 18%. Write a Visual Basic program to calculate the commission rate.

(20marks)