



MUEO

MOI UNIVERSITY

OFFICE OF THE DEPUTY VICE CHANCELLOR
(ACADEMICS, RESEARCH & EXTENSION)

UNIVERSITY EXAMINATIONS 2021/2022 ACADEMIC YEAR SECOND YEAR EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE IN BUSINESS MANAGEMENT

COURSE CODE: BBM 210

COURSE TITLE: COMPUTER PROGRAMMING

DATE: 25/07/2022 **TIME:** 2.00 P.M. - 5.00 PM

INSTRUCTION TO CANDIDATES

- SEE INSIDE.

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COURSE CODE: BBM 210 – COMPUTER PROGRAMMING

SECTION A- QUESTION ONE IS COMPULSORY (30 MARKS)

QUESTION ONE:

- a) Computer Programming require a wide range of skills and capabilities, which include technical capabilities with soft skills such as the ability to work as a team and communicate well with other team players.
- i) Discuss any THREE qualities of a good programmer (3 marks)
- ii) Discuss any THREE features/qualities of a good program (3 marks)
- b) Differentiate between the following types of translators: *Compilers, Interpreters* and *Assemblers* (3 marks)
- c) Briefly describe the following programming languages, giving examples of their source codes; *Machine code language* and *Assembly language* (6 marks)
- d) Explain any FIVE data types supported by C programming and state how much storage/memory each requires. (5 marks)
- e) Write a C program to display the following message “HELLO WORLD!” (5 marks)
- f) Discuss the different tokens available in C programming language (5 marks)

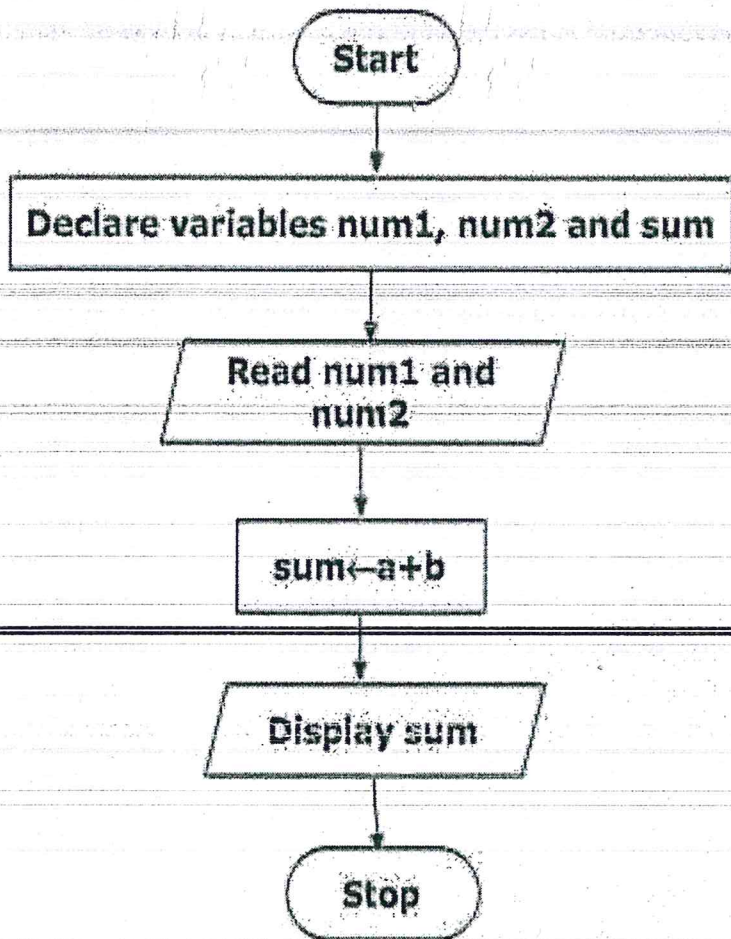
SECTION B - ANSWER ANY TWO QUESTIONS (each Question carry 20 marks)

QUESTION TWO:

- a) Define an algorithm, what is the importance of algorithms in program development? (4 marks)
- b) Write an algorithm to find out whether a number is odd or even (6 marks)
- c) Write a program using for *loop* that counts down from 50 down to 0, displaying only the numbers that are evenly divisible by seven or six in this range. (10 marks)

QUESTION THREE:

- a) What is a flowchart? Differentiate between *System flowchart* and *Program flowchart* (5 marks)
- b) Draw a flow chart to print first 100 numbers using; **Do While-End do logic.** (4 marks)
- c) Below is a flowchart showing addition of two numbers entered by a user:



Using C programming language, write the equivalent source code (5 marks)

QUESTION FOUR:

a) How are decision control structures different from looping control structure? (5 marks)

b) Briefly explain the following programming terms:

i. Variable

ii. Operator

iii. Expression

iv. Constant

v. Tokens

(5 marks)

c) With the help of a flowchart and algorithm, write a corresponding program to compute the sum of digits which are even in any input integer number (10 marks)

QUESTION FIVE:

- a) Decision making structures require that the programmer specify one or more conditions to be evaluated or tested by the program. By use of flowcharts describe any TWO decision statements used in C programming (6 marks)
- b) Using a program code, describe a nested *if-else* statements (4 marks)
- c) Write a program code to describe the use of *do...while* loop (4marks)
- d) Discuss the importance of program documentation in programming (6marks)

QUESTION SIX:

- a) By giving examples, differentiate between *Primary* and *Derived* data types (4 marks)
- b) Using a program code, write a source code of a function, called **max()**, that takes two parameters X1 and X2 and returns the maximum parameter between the two (6 marks)
- c) Using a program code, demonstrate how to initialize an Array to hold up-to 10 double numbers (4 marks)
- d) Using program examples, explain the difference of function arguments below:
 - i. Call by a Value
 - ii. Call by reference (6 marks)

END