SUBJECT: INTRODUCTION TO COMPUTER SCIENCE AND PROGRAMMING
CODE: SCS 1101
COMPUTER SCIENCE, APPLIED. PHYSICS, APPLIED. MATHEMATICS

INSTRUCTION TO CANDIDATES

Answer four (4) questions from section A.
Answer one (1) question from section B.
Each question carries 20 marks

Time: 3 hours

SECTION A

QUESTION ONE

The invent of computer has greatly affected the life of many people. Discuss.
[20]

QUESTION TWO

a)   State the main components of a computer.   [5]

b)   Explain how each of the components mentioned in (a) functions.   [15]

QUESTION THREE

Explain briefly how the following devices operates.

a)   Dot matrix printer.   [4]

b)   Laser printer.   [4]

c)   Joy stick.   [4]

d)   Mouse.   [4]

e)   Plotters.   [4]

QUESTION FOUR

Outline the criteria that can be used to select a software package. [20]

QUESTION FIVE

a) What are the advantages of high level language over the other language. [5]

b) Outline the steps followed in solving a computer problem. [15]

SECTION B

QUESTION SIX

The following algorithm is used to sum numbers between 1 and 10

i) initialise sum and count to zero
ii) While count is less than 11 do
    ii.i) add count to sum
    ii.ii) increament count by 1
    end while
iii) Print sum

Write a program in C or in Pascal that can implement the above algorithm. [20]

QUESTION SEVEN

Write a program in C or in Pascal to Compute:

$$y = \frac{3h}{8}\left(y_0 + y_n + 2\sum_{i\,even} y_c + 4\sum_{i\,odd} y_i\right)$$

Where h and y_0, y_i------y_n are read via the keyboard. Take n to be 4. [20]

END OF QUESTION PAPER

GOOD LUCK!

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