INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION

TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

DICT/APRIL/ 2019

ECS 2103:

PROGRAMMING METHODOLOGY

END OF SEMESTER EXAMINATION

SERIES:AUGUST2019

TIME:2HOURS

DATE: Pick DateSelect MonthPick Year

Instructions to Candidates
You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of **FIVE** questions. Attemptany THREE questions.
Do not write on the question paper.

Question ONE

(a) Explain the following terms as used in computer programming.

      i)   Portability
      ii)   Computer programming
      iii)   Program
      iv)   assembler

                                             (8 marks)

b)(i) Explain four characteristics of a good Algorithm.   (8 marks)

   (ii) Explain any two features of fourth generation programming languages
                                                                                            (4 marks)

Question TWO

 (a) A School is interested in computerizing their students grading system which is as follows;

Marks	Grade
80 - 100	A
60 - 79	B
50 - 59	C
40 - 49	D
0 - 39	E

   (i)   Draw a flow chart to represent the solution.   (6 marks)
   (ii)   Explain the advantages of program flowchart as program design tools.   (6 marks)

c).) Explain the term looping control structures.   (
)

Question THREE

(a). A Sales person for a mobile handset selling company, earns a basic salary of 20,000, a commission of 2% for all total sales for the months and a bonus of 300 for every handset sold during the month. Write a Visual Basic program to calculate the gross salary for a worker at the end of the month when the number of hand sets sold is keyed in. [12 Marks]

(b)) Explain any four logical operators   **(8 marks)**

Question FOUR

(a)) Develop a Visual Basic program to read the name and score of a student. The program should calculate the status given the following. If score is equal to or greater than 50 then status is "PASS" otherwise "FAIL".

(10 marks)

(b) Explain the term Data structure as used in programming

(2 marks)

c) Explain any four characteristic of arrays (8 marks)

Question Five

(a)Explain the seven stages of program development life cycle.
(14 marks)

(b)) Explain the three control structures in computer programming.
(6 marks)