TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

DICT JAN 2016

ECS 2103: PROGRAMMING METHODOLOGY

END OF SEMESTER EXAMINATION

SERIES: APRIL2016

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. Attempt any THREE questions.
Do not write on the question paper.

Q1(a) Explain the following terms as used in computer programming.

i) Portability
ii) Translator
iii) Program
iv) Interpreter (8 marks)

b) Explain the following levels of programming languages.

i) Assembly programming language (6 marks)

ii) Object oriented programming language (6 marks)

Q2(a) Explain the advantages of program flowchart as program design tools. (6 marks)

b) Develop a program Pseudocode to read the names and scores for ten students. It should calculate and report the grade average.

(6 marks)

c).) Explain the term looping control structures. (4 marks)

d) state four types of programming error (4 marks)

3(a)) Explain the following programming techniques

i) Modular programming
ii) Event driven programming
iii) Web programming
iv) Visual programming **(8 marks)**

(b)) Explain any five logical operators **(10 marks)**

c) State the importance of program hierarchy chart (2 marks)

4(a)) Develop a C 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 Array as used in programming **(2 marks)**

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

5(a) Write a C Program to read TEN Integer Values, then display the THIRD Largest element. Use a loop. **(10 marks)**

(b)) Explain any five arithmetic operators **(10 marks)**