TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN INFORMATION AND COMMUNICATION TECHNOLOGY

ECS 2205: MOBILE PROGRAMMING

SPECIAL/ SUPPLEMENTARY EXAMINATION

SERIES: SEPTEMBER 2018

TIME: 2HOURS

DATE: Sep 2018

<u>**Instructions to Candidates**</u>
You should have the following for this examination
-*Answer Booklet, examination pass and student ID*
This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.
Do not write on the question paper.

Question ONE

a) Describe the following methods as used in mobile programing   (6 Marks)
   i)   StartApp( )
   ii) PauseApp( )
   iii) DestroyApp( )
b) Write down the syntax of a MIDlet skeleton   (6 Marks)
c) Name and describe any FOUR interfaces provided by *javax.microedition.rms* package   (8 Marks)

Question TWO

a) Briefly describe any TWO configurations of J2ME architecture   (6 Marks)
b) List and describe any TWO list class methods   (4 Marks)
c) Describe TWO design considerations to consider when developing mobile applications   (4 Marks)
d) State and describe any three reasons why we obfuscate J2ME code   (6 marks)

Question THREE

    a) Differentiate between MIDlet and midlet as used in J2ME   (2 Marks)

    b) Using a clearly labeled diagram, describe FOUR states of a standard MIDlet   (8 Marks)

    c) List and describe any THREE APIs found in top layer of J2ME architecture   (6 Marks)

    d) Differentiate between Kilo Virtual Machine and Compact Virtual Machine   (4 Marks)

Question FOUR

    a) List and describe FIVE exceptional classes provided by *javax.microedition.rms* package   (10 Marks)

    b) Describe any FOUR tools that a developer requires to develop J2ME application   (8 Marks)

    c) Define the term 'Obfuscation'   (2 Marks)

Question FIVE

    a) Briefly describe any TWO J2ME architecture profiles   (4 Marks)

    b) Differentiate between J2ME and J2SE Java development environments   (4 Marks)

    c) Describe FOUR ways to code to achieve best performance of mobile application   (8 Marks)

    d) List TWO TextBox class and TWO Screen class methods   (4 Marks)