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

END OF SEMESTER EXAMINATION

SERIES: AUGUST2019

TIME: 2HOURS

DATE: 1Aug2019

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 question ONE (Compulsory) and any other TWO questions.
Do not write on the question paper.

Question ONE

a) Describe J2ME architecture   (8 Marks)
b) Describe the following terms: (6 Marks)
   i)   Kilo Virtual Machine (KVM)
   ii) Obfuscation
   iii) Compact Virtual Machine (CVM)
c) Name and describe any THREE reasons for obfuscating J2ME code   (6 Marks)

Question TWO

a) Describe THREE design strategies to consider when developing for small devices   (6 Marks)
b) Differentiate between CLDC and CDC configurations   (4 Marks)
c) Briefly describe any FOUR classes provided by MIDP profile   (8 Marks)
d) Define the term Java Virtual Machine   (2 marks)

Question THREE

a) Using a clearly labeled diagram, describe FOUR states of a standard MIDlet   (8 Marks)
b) Write down the syntax of a MIDlet skeleton   (5 Marks)
c) Describe any TWO tools that a developer requires to develop J2ME application   (4 Marks)
d) List and briefly describe any THREE versions of Java programming language   (3 Marks)

Question FOUR

a) List and describe any FOUR APIs found in top layer of J2ME architecture   (8 Marks)
b) Using a well labelled diagram, describe the MIDlet development cycle   (10 Marks)
c) List any TWO differences between J2ME and J2SE   (2 Marks)

Question FIVE

a) GUI of MIDP are not based on Abstract Windowing Toolkit (AWT). Why?   (4 Marks)
b) Outline THREE types of screens found in the MIDP API   (3 Marks)
c) List and describe FIVE exceptional classes provided by *javax.microedition.rms* package   (10 Marks)
d) Describe J2ME   (3 Marks)