TECHNICAL UNIVERISTY OF MOMBASA

KWALE CAMPUS

Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

DIPLOMA INFORMATION COMMUNICATION TECHNOLOGY (DICT 13S)

ECS 2205: MOBILE PROGRAMMING

END OF SEMESTER EXAMINATION
SERIES: APRIL 2015
TIME: 2 HOURS

<u>**Instructions to Candidates:**</u>
You should have the following for this examination
- *Answer Booklet*
This paper consists of **FIVE** questions.
Attempt question **ONE (Compulsory)** and any other **TWO** questions

Maximum marks for each part of a question are as shown
This paper consists of **THREE** printed pages

Question One (Compulsory)

a) List down the component found in each layer of J2ME architecture.   **(8 marks)**
    (i) Profile layer
    (ii) Virtual machine
    (iii)   Configuration layer
    (iv) Host Operating system

b) Describe the functions of the following methods as used in mobile programming   **(6 marks)**
    (i) Start APP ( )
    (ii) Pause App ( )
    (iii)   Destroy App ( )

c) Write down the syntax of MIDlet skeleton   **(6 marks)**

Question Two

a) Define the term "Obfuscation"   **(2 marks)**

b) List and explain THREE main reasons to obfuscate a J2ME code   **(6 marks)**

c) Using a suitable diagram, describe the FOUR states of a standard MIDlet   **(12 marks)**

Question Three

Study the following code segment and answer the questions below:

1. Import javax.microedition LcduL.*

   public class program extends MIDlet;

   {

      Private Display, display

      StringItem;

2. Public program ( )
   {
   stringitem = new stringitem (null, "hello");
   Form form = new Form ("Welcome");
   forM.append (stringitem);

3. Public void startApp ( )
   {
   }

4. Public void pauseApp ( )
   {
   }
5. Public void destroyApp ( )
   {

```
        }       Notify Destroyed;
    }
```

     (i) Describe the function of each line in code segment marked 1   **(4 marks)**
     (ii) Describe the function of each line in code segment marked 2   **(4 marks)**
     (iii)   What does the method 3 do in the above code   **(4 marks)**
     (iv) What does the method 4 do in the above code   **(4 marks)**
     (v) State the output of the above code   **(4 marks)**

Question Four

a) List and describe any TWO screen class methods   **(4 marks)**
b) List and describe any TWO ticker class methods   **(4 marks)**
c) List and describe any TWO textbox class methods   **(4 marks)**
d) List and describe any TWO alert class methods   **(4 marks)**
e) List and describe any TWO list class methods   **(4 marks)**

Question Five

The javax.microedition.rms package defines FOUR interface, one class and FIVE exceptional classes. List and describe each interface, class and exceptional classes   **(20 marks)**