

Reg. No. \_\_\_\_\_ Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
SECOND SEMESTER MCA (LATERAL ENTRY) DEGREE EXAMINATION, AUG 2017

Course Code: **RLMCA206**  
Course Name: **MOBILE COMPUTING**

Max. Marks: 60 Marks

Duration: 3 Hours

### **PART A**

*Answer all the questions. Each question carries 3 marks.*

1. What are the four advantages of Wireless LANs over Wired LANs?
2. What do you mean by GSM Services? List various services including its subcategories.
3. What are the advantages and limitations of GPRS?
4. What are the features of Windows Mobile Operating system?
5. What is meant by Android Software Stack? Discuss about each items in it.
6. What are the differences between Conventional computers and J2ME devices?
7. What is meant by DDMS? What is its use?
8. What an Emulator? Mention four hardware features supported by Emulators.

### **PART B**

*Answer any one question from each Module. Each question carries 6 marks.*

#### **MODULE - I**

9. With the help of a neat sketch define "Protocol stack of Bluetooth". Define each of its components.

**OR**

10. Explain each component in the Wireless Communication System.

#### **MODULE - II**

11. What is the structure of a Mobile Computing Application? Draw the structure of the mobile computing application for a student management system, in which we can find the total marks of a student and top 5 high scored students.

**OR**

12. With a neat diagram explain various subsystems involved in the GSM system architecture.

**MODULE - III**

13. Explain with the help of a diagram and suitable example

a) Monolithic kernel (3)

b) Micro kernel (3)

**OR**

14. Discuss about the topics:

a) Special constraints of a Mobile Operating System. (3)

b) Special service requirements of Mobile Operating System. (3)

**MODULE - IV**

15. a) What are the components of an android application? (3)

b) Define Android SDK? List all features of Android SDK. (3)

**OR**

16. a) What are the capabilities of J2ME? (2)

b) What do you mean by J2ME configuration? Discuss about the types of J2ME configuration. (4)

**MODULE - V**

17. What is DVM? How you can differentiate it from JVM? Draw necessary figures to explain the working of DVM.

**OR**

18. What are the features of Android?

**MODULE - V**

19. Write a program for the below scenario:

Scenario: Need to create an application, which will create a SQLite database called “mobComp” and need to insert the values 1, “aaa”, 25 for the fields RollNo, StudName, Mark in to the table StudInfo.

**OR**

20. Write a program in Android studio for the below scenario

Scenario: We need to have two activities in the project. The first activity will have an EditText and Button. The second activity will have a TextView. Need to enter some value in the EditText of the first activity, when we click on the Button, it should display the entered text in the first activity inside the TextView of the second activity.

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