

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

Name: \_\_\_\_\_

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**  
**FOURTH SEMESTER REGULAR AND SECOND SEMESTER SECOND YEAR DIRECT**  
**MCA DEGREE EXAMINATION(R&S), MAY 2019**

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

Max. Marks: 60

Duration: 3 Hours

**PART A**

*Answer all questions, each carries 3 marks.*

Marks

- |   |  |     |
|---|--|-----|
| 1 | List the various applications of wireless LANs? Explain.                                       | (3) |
| 2 | Explain the different services of GSM.   | (3) |
| 3 | List t characteristics of mobile computing?  | (3) |
| 4 | Explain the operating system responsibilities in mobile devices.                               | (3) |
| 5 | How android operating systems overcome the difficulties compared with other operating systems? | (3) |
| 6 | What is meant by J2ME configuration? Explain different types of configurations.                | (3) |
| 7 | What are the facilities provided by DDMS?  | (3) |
| 8 | What is use of broadcast receiver in android?  | (3) |

**PART B**

*Each question carries 6 marks.*

**Module I**

- |   |   |     |
|---|---|-----|
| 9 | What is piconet? Explain the protocol stack of Bluetooth. | (6) |
|---|---|-----|

**OR**

- |    |  |     |
|----|--|-----|
| 10 | What are the components of a wireless communication system? Explain its functions. | (6) |
|----|--|-----|

**Module II**

- |    |   |     |
|----|---|-----|
| 11 | Explain the architecture of GPRS with a neat diagram. | (6) |
|----|---|-----|

**OR**

- |    |   |     |
|----|---|-----|
| 12 | Illustrate the structure of mobile computing application. | (6) |
|----|---|-----|

**Module III**

- 13 Explain the architectural difference between monolithic kernel design and microkernel design approach in mobile operating system with the help of a neat diagram. Also explain its advantages and disadvantages. (6)

**OR**

- 14 Explain the special constraints and special service requirements of mobile operating system. (6)

**Module IV**

- 15 Explain the architecture of android software stack structure with a neat diagram. (6)

**OR**

- 16 What is the use of WAP? Explain the WAP protocol stack with a neat diagram. (6)

**Module V**

- 17 Compare the features of DVM and JVM. (6)

**OR**

- 18 Explain the importance of using SDK, ADT, AVD in android mobile application development. (6)

**Module VI**

- 19 What is the use of Layouts in android? Explain any five layouts used in android. (6)

**OR**

- 20 What is Service in android? Explain the life cycle of Service. (6)

\*\*\*\*