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**END SEMESTER REGULAR / RETEST
EXAMINATION, JULY – 2023**

Branch : Computer Engineering

Semester : 6th

Subject Code : CO-601 (New)

MOBILE COMPUTING

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks for the questions.

Instructions :

- (i) *All* questions of PART – A are compulsory.
- (ii) Answer any *five* questions from PART – B.

PART – A

Marks – 25

1. Fill in the blanks : 1×10=10

- (a) Mobile communication network is also called as _____ network.
- (b) GPRS stands for _____.

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- (c) Visitor location register is integrated with _____.
- (d) _____ is the protection of smart-phones, phablets, tablets, and other portable tech-devices, and the networks to which they connect to, from threats and bugs.
- (e) Try not to keep _____ passwords, especially fingerprint for your smart-phone, because it can lead to physical hacking if you're not aware or asleep.
- (f) The frequency range for satellite communication is _____.
- (g) Which virtual machine is used by the Android operating system _____?
- (h) We require an AVD to create an emulator. What does AVD stand for _____?
- (i) During an Activity life-cycle, what is the first callback method invoked by the system?
- (j) The full form of APK is _____.

61/CO-601/MC/6th Sem(N) (2)

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2. Write True or False :

1×10=10

- (a) The function of the GPRS register (GR) is to store all GPRS-relevant data.
- (b) Mobile Terminated Call (MTC) is a situation in which a station calls a mobile station.
- (c) Satellite-based cellular phones are also an example of an infrastructure-based networks.
- (d) Android is built upon the Java micro edition (J2ME) version of Java.
- (e) 5.1 android version is named Jelly Bean.
- (f) To make antenna more directional, either its size must be increased or the frequency of its transmission must be increased.
- (g) On Create () method is the first callback method that is invoked by the system during an activity life-cycle.
- (h) There can be only one running activity at a given time.
- (i) Google does not licensed any Proprietary apps.
- (j) MIMO is a smart antenna technology.

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3. Choose the correct answers : 1×5=5

(a) Which of the following is not an example of wireless communication ?

- (i) Wi-fi (ii) Zig-bee
(iii) Landline (iv) Walkie-Talkie

(b) Which of the following specifies a set of Media Access Control (MAC) and physical layer specifications for implementing WLANs ?

- (i) IEEE 802.11 (ii) IEEE 802.2
(iii) IEEE 802.3 (iv) IEEE 802.5

(c) _____ stores the data related to the user and is relevant to GSM (Global System for Mobile communication) mobile systems as well.

- (i) SIM (Subscriber Identity Module)
(ii) CMR (Customer-Managed Relationship)
(iii) VLR (Visitor Location Register)
(iv) None of the above

(d) For the transmission purpose, which of the following code is applied because of its special characteristics ?

- (i) CDMA (Code-Division Multiple Access)
(ii) GSM (Global System for Mobile communication)
(iii) GPRS (General Packet Radio Service)
(iv) None of the above

(e) Android is shipped with which of these built-in databases ?

- (i) Oracle (ii) MySQL
(iii) Apache (iv) SQLite.

PART – B
Marks – 45

4. (a) Explain the evolution of Mobile Communication. 4
(b) State the difference between Wired and Wireless Communication. 3
(c) Define CDMA. 2

5. (a) Draw the Three Tier architecture of Mobile Computing. 3
- (b) What are the Threats and Issues in Mobile Computing? 3
- (c) What are the Modes of Communication? 3
6. (a) What are the requirements must be considered for mobile computing environment? 3
- (b) State the characteristics of Mobile Computing. 3
- (c) What are the different types of Middleware? 3
7. (a) What are the types of multiplexing options available to communication channels? 3
- (b) What are the different types of Networking Devices? 3
- (c) State the different types of protocol used in Mobile Computing? 3
8. (a) Describe the working mechanism of Satellite. Write advantages and disadvantages. 3
- (b) What are the Different Earth Orbit Satellite? 3
- (c) What are the Transmission Limitation? 3

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9. (a) What are the Different Version of Android? 3
- (b) Draw the Architecture of Android? 3
- (c) Write any 5 Android UI Control? 3
10. (a) How to setup Android for Eclipse IDE? 3
- (b) What are the Activity Lifecycle methods? 3
- (c) Write any 5 Emulator Commands. 3
11. (a) Difference between Explicit and Implicit Intents. 2
- (b) Define Manifest and Padding? 2
- (c) Write different types of Layout used while developing an Android App? 5

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