**PRESIDENCY UNIVERSITY**

**BENGALURU**

**SCHOOL OF ENGINEERING**

## MAKE UP EXAMINATION – JAN 2023

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| **Course Code** | : CSE304 | Date | : 28-JAN-2023 |
| **Course Name** | : Mobile Communications | Time | : 01:00PM – 04:00PM |
| **Program** | : B.Tech | Max Marks | : 100 |
| | | Weightage | : 50% |

**Instructions:**

*(i) Read the all questions carefully and answer accordingly.*

*(ii) Complete the test with in time given*

### Part - A [Memory Recall Questions]

**Answer all the Questions. Each question carries TWO marks.** (10Q * 2M = 20M)

1. Which of the following is not an example of wireless communication?
   A. Wi-Fi      B. Mobiles      C. Telephone      D. Bluetooth          [CO1]      [ Knowledge]

2. Which of the following is the drawback for cordless telephones?
   A. Security      B. Wireless technology   C. Limited coverage area          [CO1]      [ Knowledge]
   D. Mobile

3. Which of the following specifies a set of media access control (MAC)
   and physical layer specifications for implementing WLANs?
   A. IEEE 802.11          B. IEEE 802.12          [CO1]      [ Knowledge]
   C. IEEE 802.5          D. IEEE 802.16

4. Which of the following is not a TDMA standard of 2.5G network?
   A.GPRS      B.GSM   C.HSCSD      D.EDGE          [CO2]      [ Knowledge]

5. HSCSD supports which 2G standard?
   A) IS-136      B) GSM and IS-136      C) PDC      D) GSM          [CO2]      [ Knowledge]

6. Which of the following is associated with the handoff in first generation
   analog cellular systems??          [CO2]      [ Knowledge]
   A. Locator receiver  B. MAHO   C. Cell dragging   D. Breathing cell

7. Header of datagram in IPv4 has _____
   A. 0 to 20 bytes          B. 20 to 40 bytes          [CO3]      [ Knowledge]
   C.  20 to 60 bytes          D. 20 to 80 bytes

8. You want to implement a mechanism that automates the IP
   configuration, including IP address, subnet mask, default gateway, and
   DNS information. Which protocol will you use to accomplish this?          [CO3]      [ Knowledge]
   A.SMTP          B.SNMP          C.DHCP          D.ARP

9. In wireless ad-hoc network _____
   A. access point is not required    B. access point is must      [CO4]    [ Knowledge]
   C. nodes are not required      D. all nodes are access points

10. A mobile computing environment, in general, can be considered as a type of a _____ environment as well.
    A. initial            B. running            [CO4]    [ Knowledge]
    C. starting         D. None of the above

## Part B [Thought Provoking Questions]

**Answer all the Questions. Each question carries TEN marks.**      **(5Q*10M=50M)**

11. Assess why is the MAC protocol designed for infrastructure-based wireless network may not work satisfactory in infrastructure-less environment. Justify your answer.    [CO1]    [Application]

12. Give an overview of the working of current mobile cellular phones. Briefly explain the distinguishing features of various generations of wireless cellular networks.    [CO2]    [Application]

13. (i)Is 3G cellular wireless technology superior to 2G technology? Justify your answer.(5)
    (ii)Analyze the advantages and limitations of GPRS.(5)    [CO2]    [Application]

14. Analyze the congestion control mechanisms adopted by the TCP in order to improve the performance of traditional networks.    [CO3]    [Application]

15. Assess the special features that an operating system for mobile device needs to support compared to the features provided by a traditional operating system.    [CO4]    [Application]

## Part C [Problem Solving Questions]

**Answer all the Questions. Each question carries FIFTEEN marks.**      **(2Q x15M=30M)**

16. Analyze the reasons as to why a mobile handset is compact and lightweight and yet provides a large number of features such as roaming, camera, audio and video play and record, Internet browsing, etc., while the traditional landline phone handsets are bulky and provide only limited features.    [CO1]    [Application]

17. What do you understand by the mobile payment system? Briefly explain an application where mobile payment may be useful. Explain the different payment systems that are available.    [CO4]    [Application]