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Question Paper Code	13913
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B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2025

Seventh Semester

Computer and Communication Engineering
20CCPC701 – MOBILE COMMUNICATION

Regulation - 2020

Duration: 3 Hours

Max. Marks: 100

PART - A (MCQ) (10 × 1 = 10 Marks)

Answer ALL Questions

	Marks	K- Level	CO
1. First generation mobile network is _____.	1	K1	CO1
(a) digital (b) analog (c) IP technology (d) broadband			
2. Which all type of communication does a 2G technology support?	1	K1	CO1
a) voice (b) video (c) voice+ short messages (d) voice, video, short messages			
3. The process of moving from one cell to another without losing connection is called _____.	1	K1	CO2
(a) Paging (b) Handover (c) Roaming (d) None of the mentioned			
4. During connection establishment, routing address is assigned temporarily to a subscriber by its currently associated _____.	1	K1	CO2
(a) MS (b) VLR (c) HLR (d) MSRN			
5. Which of the following WLAN standard is named as Wi-Fi?	1	K1	CO3
(a) IEEE 802.6 (b) IEEE 802.11b (c) IEEE 802.11a (d) IEEE 802.11g			
6. WiMAX provides _____ communication.	1	K1	CO3
(a) simplex (b) full duplex (c) half duplex (d) no communication			
7. The tunnel for packets towards the MN starts at _____.	1	K1	CO4
(a) foreign agent (b) source (c) mobile agent (d) home agent			
8. Which among the following is an end-system or router that can change its point of attachment to the internet using mobile IP?	1	K1	CO4
(a) Mobile Node (b) Correspondent node (c) Home Agent (d) Foreign network			
9. Which layer is responsible for providing secure transmission in a wireless mobile communication protocol?	1	K1	CO5
(a) Transport layer (b) Security layer (c) Transaction layer (d) Application layer			
10. Pages in WML are called _____.	1	K1	CO6
(a) forms (b) decks (c) cards (d) pages			

PART - B (12 × 2 = 24 Marks)

Answer ALL Questions

11. Define Mobile computing.	2	K1	CO1
12. Specify the functionalities of Application Tier.	2	K1	CO1
13. What is the frequency range of uplink and downlink in GSM network?	2	K1	CO2
14. Tell the functionality of GGSN.	2	K1	CO2
15. List the various advantages and disadvantages of Wireless LANs.	2	K1	CO3
16. Why wireless LAN Services are of lower quality than wired LAN?	2	K1	CO3
17. Differentiate the functionalities of a foreign agent and home agent.	2	K2	CO4
18. Infer the purpose of DHCP.	2	K2	CO4
19. Write the applications of M-TCP.	2	K1	CO5
20. Mention the primary goal of WAP.	2	K1	CO5
21. State the capabilities of WML script.	2	K1	CO6
22. Relate WML and WML script.	2	K2	CO6

PART - C (6 × 11 = 66 Marks)

Answer ALL Questions

23. a) Explain in detail about the generations of Mobile Communications Technologies and explain the distinguishing features of various generations of wireless networks. 11 K2 CO1
- OR**
- b) Compare and contrast SDMA, FDMA, TDMA and CDMA mechanisms. 11 K2 CO1
24. a) Demonstrate GSM architecture and its services in detail. 11 K2 CO2
- OR**
- b) Outline the architecture of GPRS. List its advantage and limitations. 11 K2 CO2
25. a) Describe the architecture of WiMAX in detail. 11 K2 CO3
- OR**
- b) Summarize the services offered by IEEE.802.11 standard. 11 K2 CO3
26. a) Infer how packet delivery to and from a mobile node transferred through Mobile IP with a neat diagram. 11 K2 CO4
- OR**
- b) Draw and explain the architecture of VANET. 11 K2 CO4
27. a) Illustrate the architecture of WAP and explain the functions of each of the blocks. 11 K2 CO5
- OR**
- b) Interpret the Components and interfaces of the WAP architecture in detail. 11 K2 CO5
28. a) Construct the logical diagram of Wireless Telephone Applications. 11 K2 CO6
- OR**
- b) Show the functions of the Wireless Transaction Protocol. 11 K2 CO6