

63

(3 Hours)

[Total Marks : 80

- N.B.:** (1) Question 1 is **compulsory**.
(2) Attempt **any 3** questions out of the rest.

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| 1. | (a) | Draw and Explain Electromagnetic Spectrum for communication. | 5 |
| | (b) | Explain Hidden station and exposed station problems in WLAN | 5 |
| | (c) | Explain various types of handoffs in GSM network | 5 |
| | (d) | Explain GSM Frame Hierarchy | 5 |
| 2. | (a) | Explain synchronization in 802.11 MAC management layer for both Infrastructure as well Ad-hoc WLANs. | 10 |
| | (b) | Explain GPRS architecture in detail. Compare it with GSM architecture | 10 |
| 3. | (a) | Compare HIPERLAN-1, HIPERLAN-2 and 802.11 W-LAN | 10 |
| | (b) | Explain the functioning of I-TCP and SNOOP-TCP, giving advantages and disadvantages of both. | 10 |
| 4. | (a) | Why is Mobile IP packet required to be forwarded through a tunnel. Explain minimal techniques of encapsulation of Mobile IP packet | 10 |
| | (b) | Explain functioning of Bluetooth Baseband layer | 10 |
| 5. | (a) | Explain UMTS architecture. Explain UTRA -FDD and TDD modes | 10 |
| | (b) | Explain how Mobile Terminated Call works detailing the role of HLR and VLR | 10 |
| 6. | | Short Notes on any 2 | 20 |
| | (a) | Wireless Local Loop | |
| | (b) | Privacy and Authentication in GSM | |
| | (c) | Android framework | |
