



- Notes :
1. Answer **Three** question from Section A and **Three** question from Section B.
 2. Due credit will be given to neatness and adequate dimensions.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answer necessary with the help of neat sketches.

SECTION - A

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|-----------|---------------------------------------------------------------------------|----|
| 1. | Describe the OSI model along with its layers in detail. | 14 |
| OR | | |
| 2. | a) Compare FDMA and TDMA systems in detail. | 7 |
| | b) Discuss the features of 3G cellular system. | 7 |
| 3. | a) Discuss the functions of various cellular network hardware components. | 10 |
| | b) Justify the cellular size as 'Hexagonal cell' size. | 3 |
| OR | | |
| 4. | Describe in detail the DECT system architecture reference model. | 13 |
| 5. | a) Explain in brief the CDPD network architecture. | 6 |
| | b) Explain the EDGE data network in detail. | 7 |
| OR | | |
| 6. | a) Explain in detail the GPRS protocol reference model. | 7 |
| | b) Explain the concept of mobility management in CDPD. | 6 |

SECTION - B

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|-----------|------------------------------------------------------------------------------------------|---|
| 7. | a) Enlist various digital modulation techniques. Hence explain OFDM technique in detail. | 9 |
| | b) Explain the basic concept of FHSS. | 4 |
| OR | | |
| 8. | a) Explain the DSSS system in detail. | 7 |
| | b) Discuss the ultra wideband radio technology in brief. | 6 |
| 9. | a) Differentiate between the wired and wireless LAN techniques in detail. | 8 |
| | b) Explain the Wi-Fi system in brief. | 5 |
| OR | | |
| 10. | a) Explain WiMax IEEE 802.16 broadband wireless access standard. | 7 |
| | b) Explain in brief the WLAN FHSS physical layer format. | 6 |
| 11. | a) Explain in brief the Bluetooth protocol stack. | 7 |
| | b) Discuss the upcoming emerging wireless technology in detail. | 7 |
| OR | | |
| 12. | a) Differentiate between the PANs and WLANs. | 6 |
| | b) Explain in brief the Bluetooth packet header fields. | 7 |
