

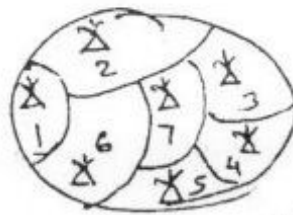
(3 Hours)

[Total Marks : 80

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- N.B. : (1) Questions No. 1 is compulsory
 (2) Solve any three from remaining questions.
 (3) Figures to the right indicate full marks.
 (4) Assume suitable data if necessary

1. (a) Consider a single high-power transmitter that can support 100 voice channels covering a given service area. Let the service area be divided into seven smaller area/cells. As shown in figure, each supported by lower power transmitters. The available spectrum of 100 voice channels is divided into 4 groups of 25 Channels each. The cells (1, 7) (2, 4) (3, 5) and 6 are assigned distinct channel groups. Show that the total number of channels that can be supported is enhanced to 175 to cover the same service area. 10



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- (b) Explain in detail TDMA, CDMA and FDMA. 10
2. (a) Explain in detail the CDMA architecture. 10
 (b) Explain in detail the IEEE 802.11 MAC Layer. 10
3. (a) Explain in detail LRWPAN. 10
 (b) Compare CDMA 2000 & W-CDMA. 10
4. (a) Explain in detail Mobile IP. 10
 (b) Explain possible attacks on wireless LAN and explain WEP in detail. 10
5. (a) Explain in detail Bluetooth architecture. 10
 (b) Explain in detail GSM architecture
6. Write short note on any four. 20
 (a) FHSS and DSSS
 (b) OFDMA
 (c) MMDS
 (d) WLAN Architecture
 (e) WiMAX

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