

[Time: 3Hrs ]

[ Marks: 80 ]

Please check whether you have got the right question paper.

- N.B:
1. Question number 1 is compulsory.
  2. Solve any THREE out of remaining
  3. Assume suitable data if necessary
  4. Figures to the right indicate full marks

- Q. 1** Attempt **any FOUR**
- a) What is frequency reuse concept (05)
  - b) Explain the 2.5 G TDMA Evolution Path. (05)
  - c) Give the Comparison of the different types of multiple access techniques used in Mobile Communication (05)
  - d) Explain pulse shaping in OFDM (05)
  - e) Compare the WCDMA and CDMA-2000 technologies (05)
- Q. 2**
- a) Explain the coverage and capacity improvement techniques for cellular system. (10)
  - b) Explain different traffic channel and control channels in GSM (10)
- Q. 3**
- a) Explain signal processing in GSM. (10)
  - b) Explain the GPRS network architecture (10)
- Q.4**
- a) Explain the advantage of spreading the spectrum in CDMA. Explain direct sequence spread spectrum with block diagram (10)
  - b) Explain variable data transmission and power control in CDMA (10)
- Q. 5**
- a) Explain 4G-LTE architecture giving a neat block diagram. (10)
  - b) Explain the ADHOC routing protocols for MANET. (10)
- Q. 6** Write short notes on **any FOUR** (20)
- a) Authentication and security in GSM
  - b) Trunking and GoS
  - c) Mobility and resource management in CDMA
  - d) RAKE Receiver
  - e) WSN

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