

[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
