

[Time: 3 Hours]

[ Marks: 80]

Please check whether you have got the right question paper.

- N.B:
1. Question.No.1 is compulsory.
  2. Attempt any three questions from the remaining five questions.

- Q.1 Answer the following: **20**
- a) What is meant by frequency reuse? What is its effect on the co-channel interference?
  - b) State the radio specifications of GSM.
  - c) Compare GSM and CDMA technologies.
  - d) Explain the terms of soft, softer and soft-soft handoffs.
- Q.2 a) Draw a well labelled diagram and explain in detail the architecture of GSM. **10**
- b) Explain GSM frame and time slot structure with the required figures. **10**
- Q.3 a) Explain mobility and radio resource management in CDMA. **10**
- b) With a neat block diagram, explain the working of a reverse channel CDMA IS95 modulation process for a single user? **10**
- Q.4 a) What is WCDMA air interface and discuss the important parameters in it. **10**
- b) Discuss the evolution path towards LTE and mention the important features of LTE. **10**
- Q.5 a) Describe UMTS architecture with a neat diagram and interfaces. **10**
- b) Compare 3G and 4G technologies. **05**
- c) Write a detailed note on mobile IP. **05**
- Q.6 Write short notes on: **20**
- a) WiMax
  - b) GPRS technology
  - c) RFID
  - d) MANET