15386

M. Tech 1st Semester Examination

Designed of Wireless and Mobile Communication Systems (NS)

EC-101

Time : 3 Hours   **Max. Marks : 100**

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Answer any FIVE full questions.

1. (a) Explain all types of transmission media used in wireless and mobile communication systems in detail.   (15)

   (b) Describe TDM techniques in short.   (5)

2. (a) Explain different types of propagation modes in wireless communication systems.   (10)

   (b) Discuss D555 and FH55 with the help of suitable examples.   (10)

3. (a) What do you mean by error control coding? Explain linear block codes using a suitable example.   (10)

   (b) What do you mean by pseudo-random sequence? Explain, how it can be generated?   (10)

4. (a) Describe IEEE 802.11 wireless access standards. Also explain its protocol architecture.   (10)

   (b) Explain cordless system briefly.   (10)

5. (a) Describe TCP/IP protocol architecture in detail.   (10)

   (b) Explain operation of mobile IP.   (10)

6. (a) Elaborate architecture of a CDMA system.   (10)

   (b) Explain signalling applications in CDMA system.   (10)

7. (a) Explain GSM architecture in detail.   (10)

   (b) Discuss GSM logical channels.   (10)

8. Write short notes on the following:

   (i)   CDMA   (ii)   3G system

   (iii) CRC codes   (iv)   LSO   (4×5=20)