M.Tech. (ECE) 2nd Sem Examination
June 2013
TELECOMMUNICATION SWITCHING SYSTEMS
Subject Code: ECL506

Before answering the question paper the candidate should ensure that they have been supplied the correct question paper. Complaints in this regard, if any, shall not be entertained after the examination.

Note: Attempt any five questions and all questions carry equal marks.

Section – A

1. (a) What is network synchronization. Discuss the need and methods to achieve network synchronization? (10)
   (b) What do you understand by delay and how they affect the communication system. Also classify the various types of delays in details? (10)

2. (a) Discuss the functions and types of a switch in a communication system. Give the advantages of switching system. (10)
   (b) With a neat diagram explain No 4 ESS toll switch in detail. (10)

3. (a) What are the advantages of recovering clock instead of generating at receivers? Make a block diagram of PLL and explain each block in detail (10)
   (b) Write a short note on (5+5=10)
       (i) Timing inaccuracy
       (ii) Jitter measurement

Section – B

4. What do you mean by ISDN, Explain the D channel protocols in detail? (20)

5. Explain the following in detail. (10 +10=20)
   (a) ADSL
   (b) MODEM

6. Write short notes on following
   (a) Integrated Digital Loop Carrier Systems (5)
   (b) Blocking Probability (5)
   (c) Finite Queue (5)
   (d) Arrival Distributions (5)