

Code No: **R41045****R10****Set No. 1**

IV B.Tech I Semester Supplementary Examinations, February/March - 2018
TELECOMMUNICATION SWITCHING SYSTEMS
(Electronics and Communication Engineering)

Time: 3 hours**Max. Marks: 75**

Answer any FIVE Questions
All Questions carry equal marks

- 1 a) Explain the principles of Crossbar Switching. [8]
b) Explain in detail the blocking and non – blocking networks. [7]
- 2 a) Draw and explain time division switching in detail. [7]
b) What are the differences between input and output controlled Time division space switch techniques. [8]
- 3 a) What are the factors that limit the length of subscribers loop? Discuss them. [8]
b) Explain the concept of alternative routing with necessary equations. [7]
- 4 a) Explain the differences between In channel and Common Channel Signaling Schemes. [7]
b) Consider a group of 1200 subscribers which generate 800 calls during the busy hour. The average holding time is 3.4 minutes. What is the offered traffic in Erlangs, Cent call seconds (CCS) and calls minute (CM)? [8]
- 5 a) What the help of a block diagram, Explain Two point data communication circuit. [8]
b) What is a protocol? Explain Data communication network. [7]
- 6 a) Explain the LAN protocol architecture. [8]
b) Compare connection oriented & connection less service. [7]
- 7 a) Explain about ISDN interfaces. [8]
b) Describe the four categories of messages in the ISDN network layer? [7]
- 8 a) How does ADSL modulate a signal? [8]
b) Write short notes on DOCSIS. [7]