

Code No: **R41045**

R10

Set No. 1

IV B.Tech I Semester Supplementary Examinations, March - 2017

TELECOMMUNICATION SWITCHING SYSTEMS

(Electronics and Communication Engineering)

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

Answer any FIVE Questions

All Questions carry equal marks

- 1 a) What is the function of circuit switch? Clearly explain Electronic Space division switching. [7]
b) What is the need for Telecommunication Switching System? [8]
- 2 a) Explain n- stage combination switching. [7]
b) Compare Combination Switching with Electronic Space switching and Time Division Switching? [8]
- 3 a) Describe the major components of a telephone network. [8]
b) An exchange is designed to handle 20000 calls during busy hour. One day the number calls during busy hour is 25000 calls. What is the resulting Grade of Service? [7]
- 4 a) Write about modes of operation of Common channel Signaling. [7]
b) Explain Grade of Service and Blocking probability. [8]
- 5 a) Explain the Layered Network Architecture? [7]
b) Derive an expression of blocking probability for a 3-stage network. [8]
- 6 a) Explain connection oriented and connection less services with examples. [8]
b) Compare packet switching network and circuit switching network. [7]
- 7 a) Explain layered network protocols? [7]
b) Explain the functions of all the layers of OSI reference model? [8]
- 8 a) Write Short notes on i) CMTS ii) SONET [8]
b) Explain Integrated Services Digital Network with a neat block diagram? [7]