

Code: 13A04605

R13

B.Tech III Year II Semester (R13) Regular & Supplementary Examinations May/June 2017

TELECOMMUNICATION SWITCHING NETWORKS

(Electronics & Communication Engineering)

Time: 3 hours

Max. Marks: 70

PART - A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) List out the salient features of SONET.
 - (b) What do you mean by line coding?
 - (c) Give the significance of STS switching.
 - (d) What is the need of digital switching?
 - (e) What are the advantages of network management?
 - (f) Give the principle involved in network synchronization.
 - (g) Explain about voice band modems.
 - (h) List out the limitations of hybrid fiber communication system.
 - (i) What do you understand by over flow traffic?
 - (j) Explain about finite queues.

PART - B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT - I

- 2 Discuss in detail about DS3 payload and E4 payload mappings.

OR

- 3 Explain in detail about unidirectional path switched ring and Bi-direction line switched ring.

UNIT - II

- 4 With a neat diagram, explain the principle involved in digital cross – connect systems.

OR

- 5 Discuss in detail about the elements of SS7 signaling.

UNIT - III

- 6 Discuss in detail about timing inaccuracies and clock instability.

OR

- 7 What is the need of asynchronous multiplexing and explain about phase – locked loop?

UNIT - IV

- 8 Discuss in detail about ISDN D channel protocol and PCM modems.

OR

- 9 Explain in detail about various digital satellite services.

UNIT - V

- 10 Describe the concept involved in exponential and constant service times.

OR

- 11 Explain in detail about end to end blocking probabilities.
