

B.Tech IV Year I Semester (R13) Supplementary Examinations 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) What are SONET rings?
 - (b) Define the term multiplexing.
 - (c) List out the applications of time division switching.
 - (d) What are the salient features of STS switching.
 - (e) What do you understand by network management?
 - (f) Define the term 'Phase — locked Loop'.
 - (g) Explain about digital subscriber access.
 - (h) What is the need of ISDN?
 - (i) What is the concept involved in "Exponential Service times"?
 - (j) What are the delay systems?

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

UNIT – I

- 2 With a neat diagram, explain the operating principle, advantages and applications of FDM multiplexing and modulation.

OR

- 3 Discuss in detail about the SONET frame formats and SONET administration and maintenance.

UNIT – II

- 4 Explain in detail about space division switching and TST switching.

OR

- 5 Discuss in detail about Digital Switching in an analog environment.

UNIT – III

- 6 Explain in detail about Jitter measurements and systematic Jitter.

OR

- 7 Discuss in detail about U.S. Network synchronization.

UNIT – IV

- 8 With a neat block diagram, explain the need and operation of Integrated Digital Loop Carrier Systems.

OR

- 9 Draw the architecture of ISDN basic rate access and explain about it.

UNIT – V

- 10 Describe the concept involved in holding time distributions.

OR

- 11 Discuss in detail about Network blocking probabilities.
