

R09

Code No: 57040

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, November - 2015

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 functions of a switching system.
- b) Explain the operation of 10,000 line step-by-step exchange with the help of a tracking diagram. [7+8]
- 2.a) Explain the terms (i) Grade of Service (ii) Congestion.
- b) Derive the expression for Probability of delay for a Quening system. [7+8]
- 3.a) Give the application of gradings.
- b) Compare single stage and multistage networks.
- c) Design a three stage network with 'N' incoming trunks and 'N' outgoing trunks. [5+5+5]
- 4.a) Explain the operation of Time division Time switch.
- b) Compare Time Multiplexed space switching and Time multiplexed time switching. [7+8]
- 5.a) What is the significance of reliability, availability and security with reference to a switching system.
- b) Explain about Distributed Processing in Stored Program control. [7+8]
- 6.a) Briefly explain about PCM and Inband signaling.
- b) Describe the frame format of HDLC protocol used in CCITT Signalling system number 7. [7+8]
- 7.a) Explain and compare pure ALOHA and Slotted ALOHA protocols.
- b) Compare bus and ring Networks. [8+7]
8. Write a brief note on:
 - a) Cellular radio Networks
 - b) Integrated digital Networks. [7+8]

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