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Code No: 09A70406

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, May/June - 2013

Telecommunication Switching Systems
(Electronics and Communication Engineering)

Time: 3 Hours

Max. Marks: 75

Answer any Five Questions
All Questions Carry Equal Marks

- 1.a) Describe the classification of switching systems.
- b) Explain the principle of crossbar switching. [10+5]

- 2.a) Define the terms: Equipment Utilization Factor, Cost Capacity Index.
- b) In a step-by-step switching system it is possible to use a number system other than the decimal system. Given that cost of a two motion selector is governed by $C_s = 100 + 0.25b^2$ units, where 'b' is the number base, determine the value of 'b' that would result in the minimum cost for a switch that support 'N' subscribers. Make suitable assumptions, if needed. [10+5]

- 3.a) What are the applications of gradings?
- b) Compare the features of single stage and multistage networks. [5+10]

- 4.a) Describe time division time switching.
- b) What do you mean by combination switching? [10+5]

- 5.a) What do you meant by stored program control?
- b) Describe CCITT SS7. [6+9]

- 6.a) Describe high level data link control protocol.
- b) Explain the concept of statistical multiplexing. [10+5]

- 7.a) Bring out a comparison of bus and ring networks.
- b) Describe the architecture of ISDN. [8+7]

8. Write short technical notes on:
 - a) Intelligent networks.
 - b) Cellular radio network features.
 - c) ATM switches. [15]

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