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B.E./B.Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APR/MAY 2013  
ELECTRONICS AND COMMUNICATION ENGINEERING BRANCH  
SEVENTH SEMESTER

EC 9032 – DIGITAL SWITCHING AND TRANSMISSION  
(REGULATIONS 2008)

59

Duration: 3 Hours

Max.marks: 100

Answer ALL questions

PART-A

(10x2=20 Marks)

1. Draw the spectrum of a baseband voice signal.
2. Write the problems with integrated services.
3. Define in-band signaling.
4. Why are standards essential in telecommunication networking?
5. What is local loop?
6. Compare ISDN local loop and wireless local loop.
7. List the merits of switching system software.
8. Write the principle of photonic switching.
9. Define the unit of traffic.
10. Define blocking probability.

PART-B

(5x16=80 Marks)

- 11.(i) Explain about asynchronous transmission. (8)  
(ii) Discuss the main parameters of integrated services. (8)
- 12.(a) With adopted technologies compare FDMA, TDMA and CDMA techniques. (16)  
OR  
12.(b)(i) With block diagram discuss on SONET/SDH. (10)  
(ii) Discuss the tasks to be performed by signaling system. (6)
- 13.(a) Discuss the principle of ISDN and cellular mobile communication. (16)  
OR  
13.(b) Describe the analog national network and give a detailed account on mobile satellite services. (16)
- 14.(a) Discuss and differentiate message switching and packet switching with merits and demerits. (16)  
OR  
14.(b)(i) Describe the simplest type switching fabric. (8)  
(ii) Explain the principle of ATM switching. (8)
- 15.(a) Draw the block diagram of end to end communication system and explain the need for each sub-system. (16)  
OR  
15.(b) Derive the Erlang-B formula. (16)