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Name : .....

Reg. No: .....

EIGHTH SEMESTER B.TECH DEGREE EXAMINATION, NOVEMBER 2013.

(2009 Scheme)

ELECTRONICS AND COMMUNICATION ENGINEERING

EC 09 801 – DATA COMMUNICATION NETWORK

Time : Three Hours **Maximum : 70 Marks**

PART A

Answer all Questions *5 x 2 = 10 marks*

1. Define Poisson process.
2. Define congestion.
3. What is a datagram ?
4. Give the token ring frame format.
5. Distinguish between Circuit Switching and Packet Switching.

PART B

Answer any four Questions *4 x 5 = 20 marks*

6. State and Explain Little's Formula.
7. Explain Sliding window protocol.
8. Explain the two types of data transmission modes.
9. Explain Ethernet standard.
10. State and explain GoS and blocking probability.
11. Explain Lee's approximation.

PART C

Answer all Questions *4 x 10 = 40 marks*

12. a. . Derive the M/M/1 and M/M/m/m queuing models

(OR)

b. i. Explain Markov Chain.
ii. Explain M/G/1 queue.

13. a. What are the three frame formats used with SDLC ? Determine the hex code for the control field in an SDLC frame for the following conditions; information frame, poll transmitting frame 4 and confirming reception of frames 2, 3 and 4

(OR)

b. . With a suitable example and psuedocode explain any one shortest path algorithm.

14. a. Discuss in detail about CSMA/CD.

[OR]

b. Explain the architecture of X .25 and its layers.

15. a. (i) Explain the analysis of blocking models and delay models

(OR)

b. With suitable example explain Digital Switching Network..

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