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Question Paper Code : 60367

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

Seventh Semester

Electronics and Communication Engineering

CS 2060/CS 807/EC 1009/10144 ECE 33/10144 CSE 62 — HIGH SPEED NETWORKS

(Common to Eighth Semester – Computer Science and Engineering)

(Regulations 2008/2010)

(Also common to PTCS 2060 – High Speed Networks for B.E. (Part-Time) Seventh Semester – Electronics and Communication Engineering/Computer Science and Engineering – Regulations 2009)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. State the advantages of frame relay.
2. Is CSMA/CD used In gigabit LANS? Justify.
3. List out the three assumptions considered by Jackson for analyzing the network of queues.
4. State the effects of congestion.
5. Define real time variable bit rate (rt-VBR).
6. What is window management in congestion control?
7. Compare Integrated Services architecture and Differentiated Services architecture.
8. What is the significance of Random Early Detection technique?
9. What is meant by soft state?
10. What is label stacking?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Describe the architecture of Frame relay.
(ii) Explain in detail about
(1) Fast Ethernet
(2) Gigabit Ethernet.

Or

- (b) (i) How ATM logical connection is established and maintained? Explain.
(ii) Briefly explain about the architecture of 802.11.
12. (a) (i) Explain with an example the implementation of single server queues. (8)
(ii) Explain in detail about the Jackson's theorem. (8)

Or

- (b) (i) Explain the effects of congestion in packet switching networks. (8)
(ii) Explain how congestion avoidance is done in a frame relay network. (8)
13. (a) (i) Explain the TCP congestion control in detail. (10)
(ii) Discuss KARN's algorithm. (6)

Or

- (b) (i) Explain the ABR Traffic management in detail. (8)
(ii) Explain the GFR Traffic management in detail. (8)
14. (a) Explain in detail about queuing disciplines for BRFQ, WFQ, GPS and PS. (16)

Or

- (b) Explain about integrated service architecture and differentiated services in detail with neat diagram. (16)
15. (a) (i) Describe the goals and architecture of RSVP in details. (8)
(ii) Explain the MPLS architecture in detail. (8)

Or

- (b) Explain the RTP architecture and draw its header format. (16)