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Question Paper Code : 71367

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2015

Eighth Semester

Electronics and Communication Engineering

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

(Common to Seventh and Eighth Semester – Computer Science and Engineering)

(Regulation 2008/2010)

(Also common to PTCS 2060/10144 ECE 33 – High Speed Networks for
B.E. (Part-Time) Seventh Semester – Electronics and Communication Engineering –
Regulation 2009/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List the various service categories defined by the ATM Forum.
2. What are the benefits of 10 Gbps Ethernet over ATM?
3. What are the causes of congestion?
4. What is the difference between flow control and congestion control?
5. What are the features of GFR traffic?
6. What are the mechanisms used in ATM traffic control to avoid congestion conditions?
7. How random early detection helps in congestion avoidance?
8. List the limitations of WFQ queuing discipline.
9. What is meant by soft state?
10. What is label stacking?



11. (a) (i) Explain ATM Protocol architecture with a neat block diagram. (10)
(ii) Discuss the various Non-Real time ATM services. (6)

Or

- (b) (i) Explain the call control procedure in frame relay network. (8)
(ii) Discuss the relevance of CSMA/CD in Gigabit Ethernets (8)
12. (a) Describe the queuing analysis and the various queuing models in the network traffic management system. (16)

Or

- (b) Explain in detail about congestion control techniques :
(i) Back Pressure (5)
(ii) Choke packet (5)
(iii) Explain Kendall's notation in detail. (6)
13. (a) (i) Explain the continuous leaky bucket algorithm. (10)
(ii) Discuss Karn's algorithm. (6)

Or

- (b) (i) Explain performance of TCP over ATM. (8)
(ii) Explain the different techniques used in implementing retransmission timer management. (8)
14. (a) (i) Explain integrated services architecture in detail. (8)
(ii) Explain Differentiated services architecture in detail. (8)

Or

- (b) Explain the Random Early Detection algorithm. (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)