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**Question Paper Code : 31293**

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Seventh Semester

Electronics and Communication Engineering

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

(Common to Eighth Semester -- Computer Science and Engineering)

(Regulation 2008/2010)

(Also common to PTCS 2060 – High Speed Networks for B.E. (Part-Time) Seventh Semester – Electronics and Communication Engineering – Regulation 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. What is meant by Kendall's notation?
4. Mention the congestion control techniques used in packet switching networks.
5. Define peak cell rate.
6. List the TCP window management techniques.
7. State the characteristics of elastic traffic.
8. What is meant by controlled load service?
9. What is the need for RTCP?
10. What is meant by a flow descriptor?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the call control procedure in frame relay networks. (8)  
(ii) Explain the various ATM service categories in detail. (8)

Or

- (b) Explain the IEEE802.11 architecture in detail. Illustrate the functions and combined operation of various protocols in MAC sub layer. (16)

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 timer management techniques in detail. (8)  
(ii) Discuss in detail the congestion control techniques followed in ATM networks. (8)

Or

- (b) (i) Explain in detail about ABR capacity allocation. (8)  
(ii) Discuss in detail about ABR traffic control. (8)

14. (a) (i) Draw the Integrated Services Architecture and explain it in detail. (10)  
(ii) Explain the fair queuing in detail. (6)

Or

- (b) (i) Explain in detail the way in which RED technique overcomes congestion. (8)  
(ii) Write notes on the DS per hop behavior. (8)

15. (a) (i) Explain the reservation styles of the RSVP in detail. (8)  
(ii) Explain the features of MPLS. (8)

Or

- (b) (i) Explain the RTP protocol architecture in detail. (8)  
(ii) Explain the functions and message types of the RTP control protocol. (8)