Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 91335

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2014.

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. State the use of CLP bit in the header of an ATM cell.

2. Draw the ATM cell header for UNI and NNI.

3. Name some queuing models generally used in networks.

4. What is meant by choke packets?

5. What kind of flow control mechanism is used in TCP?

6. List techniques used in TCP send window management.

7. State and explain the types of PHB for differentiated services.

8. What is meant by elastic traffic?

9. What is the need for resource reservation?

10. Draw the format of MPLS label.

PART B — (5 × 16 = 80 marks)

11. (a) (i) What are the various ATM categories? Explain them in detail. (8)

(ii) Describe the fiber channel protocol architecture, (8)

Or

(b) (i) Briefly explain the functions of ATM Adaptation Layer and draw the frame format. (8)

(ii) Explain the significance of FECN and BECN fields in the format of frame relay? (8)

12. (a) (i) What are the different congestion control algorithms applied in packet switching network? Explain. (8)

(ii) Describe the single server queuing model with it structure. (8)

Or

(b) (i) How congestion control used in the traffic management? (8)

(ii) Explain in detail the implicit and explicit signals? (8)

13. (a) (i) How the flow control mechanisms applied in TCP Networks? (8)

(ii) Explain about the TCP Retransmission timer management techniques in details. (8)

Or

(b) (i) Describe the performance of TCP over ATM in detail. (8)

(ii) How congestion control window management is implemented? Explain with diagram. (8)

14. (a) (i) Briefly explain the elastic traffic and inelastic traffic? (8)

(ii) Describe the integration service architecture with diagram. (8)

Or

(b) (i) Explain random early detection method of congestion management in detail. (8)

(ii) Write notes on the following Queues:

(1) Fair Queuing (FQ) (4)

(2) Weighted Fair Queuing (WFQ). (4)

15. (a) (i) Explain the Real-Time Transport protocol (RTP) architecture and its operation. (8)

(ii) Describe the Resource Reservation protocol (RSVP) Goals and Characteristics. (8)

Or

(b) (i) What is the use of MPLS in IP based network? Describe in detail. (8)

(ii) Briefly explain the MPLS Label Stacking features with diagram. (8)
