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

Question Paper Code : 42364

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018
Eighth Semester
Electronics and Communication Engineering
CS 2060 – HIGH SPEED NETWORKS
(Common to Computer Science and Engineering)
(Regulations 2008)
(Also common to PTCS 2060 – High Speed Networks for B.E. (Part-Time) Seventh Semester – Electronics and Communication Engineering – Regulations 2009)

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. Define congestion control in packet switching networks.
4. What is sampling error ?
5. What is exponential RTO backoff ?
6. Define ABR and GFR.
7. State the characteristics of elastic traffic.
8. What is meant by controlled load service ?
9. State the characteristics of RSVP.
10. Specify the characteristics of MPLS network.

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) 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) A TCP entity opens a connection and uses slow start. Justify how many numbers of round trip times is required before TCP can send 'N' segments ? **(8)**

ii) Analyse the timer management algorithm supported by TCP congestion control scheme. **(8)**

(OR)

b) i) Specify the architecture of ATM and explain the functions of the three ATM layers. **(8)**

ii) Elaborate about the performance of TCP over ATM. **(8)**

14. a) i) Explain the ISA architecture in detail. **(8)**

ii) What is RED algorithm ? Explain in detail. **(8)**

(OR)

b) i) Explain briefly : **(4×2=8)**

1) Fair queuing.

2) Bit-Round Fair Queuing.

ii) Describe about the differentiated services. **(8)**

15. a) Explain the following :

i) RSVP. **(10)**

ii) MultiProtocol Label Switching mechanism. **(6)**

(OR)

b) Explain the following :

i) RTP. **(10)**

ii) RTCP. **(6)**