C

Question Paper Code: 59407

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2022

Elective

Electronics and Communication Engineering

15UEC907– HIGH SPEED NETWORKS

(Regulation 2015)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. Logical connections in ATM are referred to as   CO1- R

   (a) Virtual connectivity channel   (b) Visual channel connections

   (c) Virtual cable connections   (d) Virtual channel connections

2. Arrival process and the service process is defined by Markov process   CO2- R
   and it has a

   (a) Normal probability density function   (b) Exponential probability density function

   (c) Logarithmic probability density function   (d) Decibel probability density function

3. TCP flow control   CO3- R

   (a) Uses a form of sliding window   (b) Uses a form of backward window

   (c) Uses a form of forward window   (d) Uses a form of random window

4. GPS means in the subject of High speed networks   CO4- R

   (a) Global positioning system   (b) Generalized processor sharing

   (c) Generalized probability sharing   (d) Global processor sharing

5. RSVP   CO5- R

    (a) is network layer protocol that enables to provide a differentiated levels of service

    (b) is a presentation layer protocol that enables to provide a differentiated levels of service

    (c) is a physical layer protocol that enables to provide a differentiated levels of service

    (d) is a transport layer protocol that enables to provide a differentiated levels of service

<div align="center">PART – B (5 x 3= 15 Marks)</div>

6. Discuss about ATM Protocol Architecture   CO1- U

7. Summarize the reasons for network congestion   CO2- U

8. Explain the TCP flow control functions   CO3- U

9. Describe the three categories of ISA services   CO4- U

10. Discuss RTCP packet types   CO5- U

<div align="center">PART – C (5 x 16= 80 Marks)</div>

11. (a) (i) Explain the Frame relay protocol stack with a X.25.Also brief on   CO1- U   (8)
       LAPF.
      (ii) Explain the ATM cell header format.   CO1- U   (8)

<div align="center">Or</div>

   (b) (i) Describe what is wireless LANS.Give its main applications.   CO1- U   (8)

      (ii) Discuss the most important requirements for wireless LANs.   CO1- U   (8)

12. (a) Summarize the various queue parameters in a network? Also explain   CO2- U   (16)
     multi server queue system

<div align="center">Or</div>

   (b) Discuss the objectives and techniques for frame relay congestion   CO2 -U   (16)
     control. Also describe traffic rate management in a frame relaying
     network.

13. (a) (i) Explain the features of KARN s Algorithm. what are the rules   CO3- U   (8)
       used?
      (ii) Explain the ATM traffic control functions.   CO3- U   (8)

<div align="center">Or</div>

59407

(b) (i) Explain slow start technique in TCP window management. Also mention the limitations of it. CO3- U (8)

(ii) Discuss about TCP over UBR. CO3- U (8)

14. (a) (i) Summarize the various components of ISA architecture .Explain the functions of each. CO4- U (8)

(ii) What do you mean Random early detection (RED).Also brief on RED design goals. CO4- U (8)

Or

(b) (i) Compare and contrast FIFO and weighted Fair queuing . CO4- U (8)

(ii) Explain the various Differentiated services traffic conditioner. CO4- U (8)

15. (a) What is RSVP? what are its characteristics ? Also explain its protocol mechanism. CO5- U (16)

Or

(b) Explain the MPLS features and operation? Also mention the importance of Label stacking CO5- U (16)

59407

59407