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Question Paper Code: 59407

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

Elective

Electronics and Communication Engineering

15UEC907– HIGH SPEED NETWORKS

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5x 1 = 5 Marks)

1. Ethernet in metropolitan area network can be used as CO1- R
 - (a) Pure Ethernet
 - (b) Ethernet over SDH
 - (c) Ethernet over MPLS
 - (d) All of the above

2. What is interframe gap? CO2- R
 - (a) Ideal time between frames
 - (b) Ideal time between frame bits
 - (c) Ideal time between packets
 - (d) None of the above

3. Which of the following is not the benefit of an ATM LAN CO3- R
 - (a) Better performance concerning with delays
 - (b) Very high aggregate throughput
 - (c) Interconnecting existing LANs
 - (d) Simpler control and network management

4. In Integrated Services, when a source makes a reservation, it needs to define a CO4- R
 - (a) Flow Control
 - (b) Flow STCP
 - (c) Flow Solution
 - (d) Flow Specification

5. An RTP packet is encapsulated in _____ CO5- R
 - (a) A UDP user datagram
 - (b) A TCP segment
 - (c) An IP datagram
 - (d) None of the above

PART – B (5 x 3= 15 Marks)

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|-----|---|--------|
| 6. | Write short notes on ATM Cell | CO1-U |
| 7. | Write short notes on Packet Switching Networks. | CO2- U |
| 8. | Define ABR rate control. | CO3- R |
| 9. | How Random early detection helps in congestion avoidance? | CO4- R |
| 10. | Define Label Stacking. | CO5- R |

PART – C (5 x 16= 80 Marks)

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|-----|--|--------|------|
| 11. | (a) (i) Explain Asynchronous transfer mode with a neat block diagram. | CO1- U | (8) |
| | (ii) Briefly discuss ATM service categories. | CO1- U | (8) |
| | Or | | |
| | (b) Explain briefly various types of High Speed Local Area Networks. | CO1- U | (16) |
| 12. | (a) (i) Explain Traffic management in detail. | CO2- U | (8) |
| | (ii) Discuss Frame Relay Congestion Control. | CO2- U | (8) |
| | Or | | |
| | (b) (i) Explain in detail about Single Server Queues. | CO2- U | (8) |
| | (ii) Explain the effects of congestion control in packet switching networks. | CO2- U | (8) |
| 13. | (a) (i) Explain Window management in TCP. | CO3- U | (8) |
| | (ii) Discuss about GFR traffic management. | CO3- U | (8) |
| | Or | | |
| | (b) (i) Derive KARN's Algorithm. | CO3- U | (8) |
| | (ii) Explain about traffic management framework in detail. | CO3- U | (8) |
| 14. | (a) Explain briefly Queuing Discipline with types. | CO4- U | (16) |
| | Or | | |
| | (b) Briefly discuss Random Early Detection algorithm. | CO4- U | (16) |

15. (a) Discuss about operations of RSVP with a neat diagram. CO5- U (16)
- Or
- (b) Explain in detail about RTCP and RTP protocols. CO5-U (16)

