B.E./B.Tech. DEGREE EXAMINATION MAY/JUNE 2014

Fifth Semester

Computer Science and Engineering

CS2302 COMPUTER NETWORKS

(Regulation 2008)

Time: Three hours   Maximum: 100 marks

Answer ALL questions

PART A   (10 × 2 = 20 marks)

1   What is the difference between port address, logical address and physical address?

2.   What will the maximum number of frames sent but unacknowledged for a sliding window of size n – 1 (n is the sequence number)?

3.   What is the average size of an Ethernet frame?

4.   What is the access method used by wireless LAN?

5.   What is the network address in a class A subnet with the IP address of one of the hosts as 25.34.12.56 and mask 255.255.0.0?

6.   Differentiate circuit and packet switched networks.

7.   Define slow start.

8.   When can an application make use of UDP?

9.   What is PGP?

10.   What do you mean by TELNET?

PART B   (5 × 16 = 80 marks)

11   (a)   Given a remainder of 111, a data unit of 10110011 and a divisor of 1001, is there an error in the data unit. Justify your answer with necessary principles.   (16)

Or

(b)   How is frame order and flow control is achieved using the data link layer?   (16)

12   (a)   Describe the CSMA/CD protocol and comment on its performances for medium access.   (16)

Or

(b) Write short notes on :
   i.   FDDI
   ii.   Bridges and switches   (16)

13 (a) Explain the RIP algorithm with a simple example of your choice.   (16)

                                  Or

   (b)   i.Discuss the IP addressing methods.   (8)
           ii.Write short notes on ARP.   (8)

14 (a) Explain the principles of congestion control in TCP.   (16)

                                  Or

   (b) Discuss the Random Early Detection mechanism and derive the expression for
        drop probability.   (16)

15 (a) Explain the SNMP protocol in detail.   (16)

                                  Or

   (b) Write short notes on :
        i.   DNS
        ii.FTP   (16)