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Question Paper Code : 51347

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

Fifth Semester

Computer Science and Engineering

CS 2302/CS 52 — COMPUTER NETWORKS

(Common to Information Technology)

(Regulation 2008)

(Common to PTCS 2302 – Computer Networks for B.E. (Part-Time) Fourth Semester
CSE – Regulations 2009)

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 achieved using the data link layer? (16)

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

Or

- (b) Write short notes on :

- (i) FDDI
(ii) Bridges and switches. (8 + 8)

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. (8 + 8)
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