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**Question Paper Code : 51385**

**B.E./B. Tech. DEGREE EXAMINATION, MAY/JUNE 2016**

**Fifth Semester**

**Computer Science and Engineering**

**CS 2302/CS 52/10144 CS 503 – COMPUTER NETWORKS**

**(Common to Information Technology)**

**(Regulations 2008/2010)**

**(Common to PTCS 2302 – Computer Networks for B.E. (Part-time) Fourth Semester CSE  
– Regulations 2009 and 10144 CS 503 – Data Communication and Computer Networks for  
B.E. (Part-time) Fifth Semester CSE – Regulations 2010)**

**Time : Three Hours**

**Maximum : 100 Marks**

**Answer ALL questions.**

**PART – A (10 × 2 = 20 Marks)**

1. What is the need for layers ?
2. How does the FEC works in data link layer ?
3. In which layers hubs and switches work ?
4. What is collision avoidance method in MAC ?
5. State the difference between ARP and RARP.
6. Give the importance of CIDR method.
7. Diagrammatically represent the 3-way handshake for TCP connection establishment.
8. What is the need of Urgent pointer ?
9. Define the function of User agent in SMTP.
10. What is Anonymous FTP ?

**PART – B (5 × 16 = 80 Marks)**

11. (a) (i) What are the different error correction techniques available ? Explain.  
(ii) Describe the issues in the data link layer.

**OR**

- (b) (i) Describe functions and protocols of OSI layers in detail with diagram.  
(ii) How flow control is managed in the link level ?

12. (a) (i) Describe the working method of Token ring.  
(ii) Explain the physical layer management and station management of a node in wireless LAN.

**OR**

- (b) (i) Briefly explain the working procedure of IEEE 802.3.  
(ii) Describe in detail about how the FDDI is working ?

13. (a) (i) What is ICMP ? Explain the ICMP error messages in detail.  
(ii) Explain the congestion avoidance techniques in network layer.

**OR**

- (b) (i) Explain RIP routing protocol. How do you overcome the count to infinity problem ?  
(ii) Write the advantages of IPv6 over IPv4.

14. (a) (i) With a neat diagram of TCP header format, explain the function and need of the attributes that helps in connection establishment, data transmission and connection termination.  
(ii) Describe in different congestion avoidance techniques.

**OR**

- (b) (i) How adaptive retransmission is working ? Explain.  
(ii) Explain UDP functions with the neat diagram.

15. (a) (i) How SNMP is organized to control the network ?  
(ii) Describe the Email security implemented with PGP.

**OR**

- (b) (i) Suppose you want to send a mail to your friend in abroad, how DNS helps you to send the mail ?  
(ii) Explain the file transfer protocol's command for connection, communication and termination establishment.