END TERM EXAMINATION

FIFTH SEMESTER [MCA]- DECEMBER 2009

Paper Code: MCA-309	Subject- Advance Computer Networks
Paper ID: 44309	

Time : 3 Hours	Maximum Marks : 60

Note : Q.No. 1 is compulsory. Attempt one questions from one unit.

Compulsory question

Question 1: Write short notes on the following: **10*2=20**
- (a) Silly Window syndrome
- (b) RSA
- (c) OSPF
- (d) ICMP
- (e) Segmentation and reassembly
- (f) CSMA/CD
- (g) RARP Header
- (h) Tunneling
- (i) Window scale factor
- (j)   Split horizons

UNIT - 1

Question 2: **(10)**
- (a) Draw and explain UNI and NNI cell format of the cells transmitted in ATM network and differentiate among them.
- (b) Differentiate between repeaters, hubs, bridges, routers, and switches. Clearly state their position in OSI layer.

OR

Question 3: **(10)**
- (a) What are the various LAN technologies? Give their standards.
- (b) What are the various open loop and closed loop methods for handling the congestion?

UNIT – 2

Question 4: **(10)**
- (a) A host with IP address 130.23.43.20 and physical address Ox B23455102210 has a packet to send to another host with address 130.23.43.25 and physical address Ox A46EF45983AB. The two hosts are on the same Ethernet network. Show ARP request and reply packet encapsulated in Ethernet frame.
- (b) Draw IPV4 header and explain in detail.

OR

Question 5: **(10)**

- (a) Explain RIP protocol in detail.
- (b) Draw and differentiate between IPV 4 and IPV 6 header.

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UNIT – 3

Question 6:   **(10)**
    (a) Draw UDP header. What are the possible scenarios when UDP is preferred over TCP?
    (b) What are the various timers maintained at TCP protocol?

OR

Question 7:   **(10)**
    (a) IP does npt provide guaranteed delivery where as TCP provides **guaranteed delivery.** How TCP achieves this when implemented over IP?
    (b) Draw TCP header header and discuss its various fields in detail.

UNIT - 4

Question 8:   **(10)**
    (a) An FTP server has received a packet from an FTP client with IP address 153.2.7.9   . the FTP server wants to verify that the FTP client is an authorized one. FTP server can consult a file which contains names only. FTP server has only the domain address of the FTP client. FTP server asks the resolver to send an inverse query to a DNS server to ask for the name of the FTP client. Draw query and response message. Make assumptions where necessary and clearly state them.
    (b) What ate the varios protocols used by SNMP? Discuss their roles in detail.

OR

Question 9:   **(10)**
    (a) A resolver sends a query message to a local server to find the IP address for the host "chal.fhda.edu". Discuss the query and response message in detail and draw the header clearly. Take assumptions as required and clearly state them.
    (b) Briefly describe ROM and SNMP and differentiate between them.