

Roll No .....

**MCSE/MSE - 105**  
**M.E./M.Tech., I Semester**  
Examination, June 2013  
**Advanced Computer Networking**

*Time : Three Hours*

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*Note:* Attempt any five questions. All questions carry equal marks.

1. a) Explain the terms topology and access methods used in LANs. Discuss the CSMA/CD and CSMA/CA protocols.  
b) What are the differences between UDP and TCP? What is a TCP/IP Routing table?
2. a) Write in brief about various layers of OSI reference model.  
b) What is Socket? How Socket interface perform data transfer in TCP and UDP?
3. a) What is a drawback of Go Back-n protocol? How it is overcome in the selective repeat protocol? Explain in details.  
b) What do you mean by MIB in SNMP protocol? Describe SNMP packet format.
4. a) State the new features of IPv6. How many octets does the smallest IPv6 datagram contains?

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- b) Explain following application layer protocol  
(i) HTTP  
(ii) SMTP
5. a) Explain VPN addressing and routing with suitable example.  
b) What is a bridge? What are the reasons of using multiple LANs connected by bridges instead of using one large LAN?
6. a) Explain the TCP/IP based internet and intranet network.  
b) Congestion control schemes available in packet switched and frame relay networks are inadequate for ATM networks. Briefly explain.
7. a) Explain Dijkstra's Routing algorithm to find the shortest paths from source nodes to all other nodes.  
b) Write features of Internet Protocol (IP) and Transmission Control Protocol (TCP).
8. a) Describe the ATM Remote Monitoring?  
b) Draw and explain the SNMP network management architecture.

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