

(3 Hours)

[Total Marks : 100

- N. B. :** (1) Attempt any **five** questions.  
(2) Assumptions should be **highlighted**.  
(3) **Draw** diagram to explain the theory wherever **necessary**.

1. (a) Briefly explain the different types of TCP Timers. 10  
(b) What are the area of Network management ? Explain briefly. 10
  2. (a) How is the congestion control taken care of in TCP. 10  
(b) Compare POP3 with IMAP. 10
  3. (a) List and state usefulness of ARP and RARP protocols. 10  
(b) What are the types of message defined by SNMP V<sub>2</sub> and the format of PDU types ? Explain. 10
  4. (a) Discuss DNS and message format. 10  
(b) Explain subnet mask and supernet with example. 10
  5. (a) Explain working of SMTP. 10  
(b) What is silly window syndrome ? What is Clark's solution. 10
  6. (a) State 10 problems of IPv4 which are solved by IPv6. 10  
(b) TCP always preferable to UDP. Justify your answer. 10
  7. Write short note on any **four** :— 20
    - (a) Layer 3 switching
    - (b) FTP
    - (c) Karn's Algorithm
    - (d) Routing Table
    - (e) OSPF
    - (f) MPLS.
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