Con. 3708–10.   (REVISED COURSE)   AN–3529

(3 Hours)   [Total Marks : 100

N.B. : (1) Question No. **1** is **compulsory**.
    (2) Attempt any **four** questions out of remaining **six** questions.

1. (a) Give reasons for using layered protocols ?   5
  (b) List two ways in which OSI reference model and TCP/IP reference model   5
    are same and also list two ways in which they differ ?
  (c) What are the main differences between network operating system and   5
    distributed operating system.
  (d) Differentiate between monolithic kernel and microkernel approaches for   5
    designing a distributed operating system.

2. (a) Explain sliding window protocols in brief.   10
  (b) Explain main functions of network layer and also explain Distance Vector   10
    Routing Algorithim with example.

3. (a) What is congestion and what are the causes of congestion ? Explain   10
    Token bucket algorithm of congestion control.
  (b) Explain IPv4 protocol and differentiate with IPv6 protocol.   10

4. (a) Explain main features of following protocols :   10
    ICMP, ARP, BOOTP, OSPF, BGP.
  (b) Explain TCP header format.   10

5. (a) Explain various rules of designing network for better performance.   10
  (b) What are the functions of application layer. Explain SNMP protocol in   10
    brief.

6. (a) Explain desirable features of a good message passing system.   10
  (b) Explain implementation of RPC mechanisms.   10

7. Write short notes on any **four** :–   20
    (a) GSM and CDMA Technology
    (b) Types of Services in ATM Technology
    (c) IP Addresses
    (d) Bridges, Hubs, Switches, Gateways
    (e) CORBA
    (f) Bluetooth Technology.

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