BT-7/D-21   **47207**

ADVANCED COMPUTER NETWORKS
Paper : IT-415N/PE-IT-D-401A

Time : Three Hours]   [Maximum Marks : 75

Note : Attempt *five* questions in all, selecting at least *one* question from each unit. All questions carry equal marks.

UNIT–I

1. (a) Explain the seven-layer architecture of OSI model in computer networks.   (8)
    (b) Elaborate MAC protocols for high-speed LANs.   (7)

2. (a) Explain in detail TCP/IP suite of protocols.   (8)
    (b) Explain in detail Distributed Queue Dual Bus (DQDB).   (7)

UNIT–II

3. (a) How does IPv6 solve the problem Of IPv4 address exhaustion?   (8)
    (b) What are the advantages of IPv6? What is the difference between unicast and multicast address?   (7)

4. Explain the structure of IPv6 header and its fields in detail. Also explain static & automatic address configuration.   (15)

UNIT–III

5. (a) What is Mobile IP? Elaborate security related issues in Mobile IP. (8)

    (b) Define IP multicasting. Describe how does multicast protocols work. (7)

6. (a) What is SSL? Why do you need SSL Certificates? How does SSL work? (8)

    (b) What is authentication header? Explain different fields of authentication header in detail. (7)

UNIT–IV

7. Explain different security issues in Wireless LAN. What are the various protocols in a (WAP) wireless application protocol suite? (15)

8. Explain the following :
    (a) SNMP.
    (b) IGMP.
    (c) GPRS. (15)

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