BCA/M-18
INTERNET TECHNOLOGIES
Paper: BCA-364

Time: Three Hours   Maximum Marks: 80

Note: Attempt five questions in all, selecting at least one question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

Compulsory Question

1. (a)   What is Remote Procedure Call?
    (b)   Explain term IPV4.
    (c)   Explain the concept of POP protocol.
    (d)   Explain IPSes.
    (e)   What is the equivalent layer or layers of the TCP/IP Application layer in terms of OSI reference model?
    (f)   What is e-Mail?
    (g)   What is static and dynamic routing?
    (h)   Briefly describe NAT.

UNIT-I

2. What is OSI Model? Explain the functions and protocols and services of each layer.

3. (a)   Explain in detail about Internet architecture with neat diagram.
    (b)   Differentiate between :
        (i)   USENET and NNTP
        (ii)   Internet and Intranet.

UNIT-II

4. (a)   Explain the extension headers in IPv6.
    (b)   Discuss in detail about the role of DNS.

5. (a)   Compare IPv4 and IPv6.
    (b)   Compare and contrast between DHCP and ARP in detail with their applications.

UNIT-III

6. (a)   What elements would you use to demonstrate the MIME type? Explain in detail.

    (b)   Differentiate between FTP and TFTP.

7. (a)   Elaborate in detail about SMTP and SNMP protocols with an illustration.
    (b)   Differentiate between RTP and RTCP.

UNIT-IV

8. (a)   What are the principles of firewall design? Also explain the various firewall techniques.
    (b)   What do you mean by internet multicasting? Discuss.

9. (a)   Discuss in detail about the reliable flooding technique based ion link state (OSPF) protocol.
    (b)   Write a detailed note on Virtual Private Network (VAN).