[6353]-38

T.E. (Computer Engineering)
COMPUTER NETWORKS AND SECURITY
(2019 Pattern) (Semester - I) (310244)

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to the candidates :
1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figures to the right indicate full marks.*
4) *Assume suitable data, if necessary.*

Q1) a) Give short note on i) ARP ii) RARP **[6]**

    b) Explain Distance vector routing **[6]**

    c) Differentiate between Circuit Switching, Message Switching and Packet Switching. **[6]**

OR

Q2) a) Give short note on i) ICMP ii) IGMP **[6]**

    b) Explain Link state routing. **[6]**

    c) 192.168.5.51/27 for given address find out the i) subnet mask?, ii) what is first ip address for given series?, iii) what is last ip address for given series? **[6]**

Q3) a) Draw and explain TCP header format. **[6]**

    b) List and explain transport layer services. **[6]**

    c) e2 a7 00 0D 00 20 74 9e Oe ff 00 00 00 01 00 00 00 using this UDP hexadecimal dump find out in decimal numbers i) Source port no., ii) Destination port no., iii) Total length of user datagram. **[6]**

OR

Q4) a) Draw and explain UDP header format. **[6]**

    b) What is socket? What are different types of socket? Explain socket functions used in connection oriented services with diagram. **[6]**

    c) Explain SCTP protocol in detail. **[6]**

P.T.O.

Q5) a) What is DNS? Explain DNS working.   **[9]**

    b) Write short notes on FTP and TELNET.   **[8]**

<div align="center">OR</div>

Q6) a) What is SNMP? Explain SNMP working.   **[9]**

    b) What is HTTP? Explain HTTP request and reply messages.   **[8]**

Q7) a) Draw and explain ITU-T X.800 Security Architecture for OSI.   **[6]**

    b) Give short note on HTTPS.   **[6]**

    c) Give short note on IDS.   **[5]**

<div align="center">OR</div>

Q8) a) Differentiate between Symmetric and Asymmetric Key Cryptography.**[6]**

    b) Explain SSL in detail.   **[6]**

    c) Give short note on Firewalls.   **[5]**

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