P317

[6003] - 397

T.E. (E&TC)
COMPUTER NETWORK
(2019 Pattern) (Semester - I) (Elective - I) (304185)

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, and Q.7 or Q8.

2)   Figure to the right indicate full marks.

3)   Assume suitable data if necessary.

4)   Use of calculator is allowed.

Q1) a)   Draw IPV4 datagram format and Discuss in details.   **[6]**

b)   Compare circuit vs packet switching   **[4]**

c)   What are the network layer services? Explain in brief Network layer services.   **[6]**

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

Q2) a)   Discuss the Transition from IPV4 to IPV6.   **[6]**

b)   Compare IPV4 and IPV6 network addresses.   **[4]**

c)   For a network address 192. 168. 10.0 and subnet Mark 255. 255. 255. 224, Then calculate.   **[6]**

   i)   Number of subnet and Number of host.

   ii)   Valid subnet.

Q3) a)   What is routing? What are the Types of routing? What are the characteristics of routing algorithm.   **[8]**

b)   Comparision between Intra and Interdomain routing.   **[4]**

c)   What is the use of OSPF? Discuss OSPF.   **[6]**

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

Q4) a)   Describe in brief the distance vector routing algorithm with diagram.   **[8]**

b)   Discuss direct VS Indirect delivery.   **[4]**

c)   Discuss Link state routing algorithm.   **[6]**

<div align="right">***P.T.O.***</div>

Q5) a) Discuss process to process delivery in Transport layer with suitable diagram. **[6]**

b) Explain stream control Transmission protocol. **[6]**

c) Discuss the TCP connection establishment using three way handshaking. **[6]**

OR

Q6) a) Discuss the TCP Termination using three-way handshaking in TCP Protocol. **[6]**

b) Discuss Leaky Bucket algorithm. **[6]**

c) Discuss the scheduling Technique to Improve the Quality of Services (QoS). **[6]**

Q7) a) Explain how electronic mail system work? Explain basic function in Electronic mail. **[6]**

b) Explain how DNS server work. **[6]**

c) Explain HTML programming and related TAGS in brief. **[6]**

OR

Q8) Write short notes (Any three). **[18]**

a) FTP.

b) BOOTP.

c) DHCP.

d) Telnet.

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