Question Paper Code : X 60459

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020

Sixth Semester

Electronics and Communication Engineering

EC 2352/EC 62/10144 EC 603 – COMPUTER NETWORKS

(Common to Seventh Semester Biomedical Engineering)

(Regulations 2008/2010)

(Also Common to PTEC 2352 – Computer Networks for B.E. (Part-Time) Fifth Semester-Electronics and Communication Engineering – Regulations 2009)

Time : Three Hours   Maximum : 100 Marks

Answer ALL questions

PART – A   (10×2=20 Marks)

1. What is TCP/IP ?

2. Compare datagram networks with virtual circuit subnets.

3. Enumerate the significance of IEEE 802.3, 803.4 and 803.5 standards.

4. State the limitations of ALOHA protocol.

5. In an IPV4 packet, the value of HLEN is 5 and the value of the total length field is 0×0028. How many bytes of data are being carried by this packet ?

6. List out the 5 types of error messages that can be generated by ICMP.

7. Differentiate connection oriented and connectionless protocols.

8. Name the parameters of quality of service in a network.

9. What is meant by DNS ?

10. Define Kerberos.

PART – B   (5×16=80 Marks)

11. a) Discuss the architecture of OSI reference model.

(OR)

b) Discuss the architecture of TCP/IP reference model.

12. a) Describe in detail the architecture and layers of ATM. **(16)**

                (OR)

   b) Define Fast Ethernet. Give a brief note on standard Ethernet and explain the types of Ethernet. **(16)**

13. a) Write short notes on following terms :

     i) ICMP

     ii) RARP. **(8+8=16)**

                (OR)

   b) Explain in detail about different Multicast forwarding algorithms for routing. **(16)**

14. a) i) Explain how data is transmitted using TCP. **(8)**

     ii) Why UDP is said to be unreliable ? Discuss. **(8)**

                (OR)

   b) Explain any one congestion control mechanism with a neat sketch. **(16)**

15. a) i) If TELNET is using the character mode, how many characters are sent back and forth between the client and server to copy a file named file 1 to another file named file 2 using the command cp file 1 file 2 ? **(10)**

     ii) Why do we need POP3 or IMAP4 for electronic mail ? **(6)**

                (OR)

   b) Discuss the various key generation algorithms and authentication protocols used to ensure security in computer network. **(16)**

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