Reg. No. :

Question Paper Code: 50846

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Fourth Semester

Information Technology

15UIT406 - COMPUTER NETWORKS

(Regulation 2015)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. Identify the other name of a LAN card?

    (a) Modem   (b) NIC   (c) Network connector   (d) Internet card

2. Which one of the following task is not done by data link layer?

    (a) Framing   (b) Error control   (c) Flow control   (d) Channel coding

3. What is the administrative distance of OSPF?

    (a) 90   (b) 100   (c) 110   (d) 120

4. Which one of the following is a transport layer protocol?

    (a) Stream control transmission protocol
    (b) Internet control message protocol
    (c) Neighbor discovery protocol
    (d) Dynamic host configuration protocol

5. The password is sent to the server using _____ command.

    (a) PASSWD   (b) PASS   (c) PASSWORD   (d) None of these

PART - B (5 x 3 = 15 Marks)

6. Create 6 devices are arranged in a mesh topology. How many cables are needed? How many ports are needed for each device?

7. Give the relationship between propagation speed and propagation time.

8. Define subnet mask.

9. Compare UDP and TCP.

10. Identify the five E-mail headers used in MIME.

PART - C (5 x 16 = 80 Marks)

11. (a) (i) What are the four network topologies, and cite an advantage of each type. (6)

    (ii) Explain the ISO-OSI model of computer network with a neat diagram. (10)

Or

    (b) Briefly explain any three methods used for data transmission using guided media. (16)

12. (a) Write short notes on CRC Error detection with example. (16)

Or

    (b) Explain the functioning of wireless LAN in detail. (16)

13. (a) Explain the Link State routing algorithm with an example. (16)

Or

    (b) Define BGP Protocol. Describe its routing functionality in detail. (16)

14. (a) Discuss about the TCP sliding window algorithm for flow control and discuss the features of TCP. (16)

Or

    (b) (i) Explain leaky bucket algorithm in detail. (8)

    (ii) Explain the open-loop congestion control in detail. (8)

15. (a) Discuss the features of HTTP and also discuss how HTTP works. (16)

Or

    (b) (i) Discuss how the Simple Mail Transfer Protocol (SMTP) is useful in electronic mail. (10)

    (ii) What is firewall and its types in network security. (6)

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