Reg. No. : | | | | | | | | | | |

Question Paper Code: 54086

B.E. / B.Tech. DEGREE EXAMINATION, NOV 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. Which network topology is considered passive?

   (a) Cross (b) Ring (c) Bus (d) Star

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. A station in a network forwards incoming packets by placing them on its shortest output queue. What routing algorithm is being used?

   (a) hot potato routing (b) flooding
   (c) delta routing (d) none of these

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. What is the result of adding an IP address to the DNS server search order

   (a) It restricts browsing to that DNS server
   (b) It overrides the local systems IP address

(c) It tells the DNS Server where the local system is located
(d) It tells the local system where the DNS Server is located

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. What are the responsibilities of data link layer?

8. Define IP address.

9. Compare UDP and TCP.

10. Why is an application such as POP needed for electronic messaging?

PART - C (5 x 16 = 80 Marks)

11. (a) Explain Layers in OSI/ model in detail. (16)

Or

(b) Explain about the transmission modes available for data flow. (16)

12. (a) Explain in detail the error detection and error corrections. (16)

Or

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

13. (a) What is sub netting? Discuss. Also state which classes of IP address can be sub netted. (16)

Or

(b) Explain Routing table end Routing module in detail. (16)

14. (a) With neat architecture, Explain TCP in detail. (16)

Or

(b) Explain about congestion control in detail. (16)

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

Or

(b) Explain about RSA algorithm in detail. (16)