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

Question Paper Code: 45802

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Fifth Semester

Information Technology

14UIT502 - COMPUTER NETWORKS

(Common to Computer Science and Engineering)

(Regulation 2014)

Duration: Three hours | Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. The portion of physical layer that interfaces with the media access control sub layer is called

   (a) physical signaling sub layer (b) physical data sub layer
   (c) physical address sub layer (d) none of these

2. Which is the only layer of OSI layer that prevents itself from adding its own header to the data during the data transmission process?

   (a) Application layer (b) Network layer
   (c) Physical layer (d) None of these

3. Size of the data field in IEEE 802.3 is

   (a) 0 to 8181 bytes (b) 0 to 10000 bytes
   (c) 0 to 1500 bytes (d) 6000 bytes

4. FDDI stands for

(a) Fiber device data interface (b) Fiber distributed device interface
(c) Fiber distributed device interchange (d) Fiber distributed data interface

5. Header of datagram in IPv4 has

(a) 0 to 20 bytes (b) 20 to 40 bytes (c) 20 to 60 bytes (d) 20 to 80 bytes

6. ICMP is primarily used for

(a) error and diagnostic functions (b) addressing
(c) forwarding (d) none of these

7. 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

8. In transport layer, End to End delivery is the movement of data from

(a) one station to the next station (b) one network to the other network
(c) source to destination (d) one router to another router

9. Which one of the following allows a user at one site to establish a connection to another site and then pass keystrokes from local host to remote host?

(a) HTTP (b) FTP (c) telnet (d) None of these

10. Which one of the following is not an application layer protocol?

(a) media gateway protocol (b) dynamic host configuration protocol
(c) resource reservation protocol (d) session initiation protocol

PART - B (5 x 2 = 10 Marks)

11. What Recall the Error correction and classify the error correction methods?

12. Compare Transparent bridge Vs Source routing bridge.

13. List out features in OSPF.

14. Differentiate the between UDP and TCP in network layer.

15. How does MIME enhance SMTP?

PART - C (5 x 16 = 80 Marks)

16. (a) Draw the OSI network architecture and explain the functionalities of every layers in detail. (16)

Or

(b) Parse the error detection and error correction techniques. (16)

17. (a) Explain the physical properties of Ethernet 802.3 with necessary diagram of Ethernet transceiver and adaptor. (16)

Or

(b) Write a short note on:

(i) FDDI (8)

(ii) Bridges and Switches (8)

18. (a) (i) Compare virtual circuits and datagram. (8)

(ii) Explain about ARP in detail. (8)

Or

(b) Give a brief note on routing and explain distance vector routing and link state routing. (16)

19. (a) Give a brief clarification about UDP and TCP. (16)

Or

(b) Illustrate TCP congestion control techniques in detail. (16)

20. (a) Discuss the role of a DNS on a computer network. (16)

Or

(b) Write short notes on

(i) PGP (8)

(ii) SSH (8)