Reg. No. :

Question Paper Code: 41852

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

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. Which error detection method involves polynomials?

    (a) Simple parity check   (b) Two - dimensional parity check
    (c) CRC   (d) Checksum

2. The process-to-process delivery of the entire message is the responsibility of the _____layer.

    (a) Network   (b) Transport   (c) Application   (d) Physical

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. _____change their routing decisions to reflect changes in the topology

    (a) Nona daptive algorithms   (b) Adaptive algorithms

    (c) Static algorithms   (d) Recursive algorithms

6. Which of these statements is true about packet switching networks?

    (a) Resource allocation is done for a packet beforehand

    (b) Bandwidth is reserved on the links

    (c) Scheduled processing for a packet

    (d) Resource allocation is done on demand

7. In open loop congestion control techniques, the decisions are based on the _____

    (a) without regard to the current state of the network

    (b) with regard to the current state of the network

    (c) with regard to the choice of the host

    (d) without regard to the choice of the host

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. _____ is collection of millions of files stored on thousands of servers all over the world

    (a) Internet   (b) World wide web   (c) HTTP   (d) Server

10. A DNS _____servers gets its data from another DNS server

    (a) primary   (b) secondary   (c) root   (d) all of the above

PART - B (5 x 2 = 10 Marks)

11. What are the three criteria necessary for an effective and efficient network?

12. Compare Transparent bridge Vs Source routing bridge.

13. List out features in OSPF.

14. What is meant by quality of service?

15. How does MIME enhance SMTP?

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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) Explain about framing and its types. (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) Explain distance vector routing with suitable example. (16)

19. (a) (i) Illustrate and explain UDP and its packet format. (10)
   (ii) Show the difference between UDP and TCP. (6)

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)

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