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**Reg. No. :**

**Question Paper Code: 45082**

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

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

layer.

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

3. In transparent bridges, redundancy of bridges can create loops in system which is very

(a) Easy (b) Undesirable (c) Difficult (d) Long

4. 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

5. \_\_\_\_\_\_\_\_\_\_\_change their routing decisions to reflect changes in the topology

(a) Non adaptive algorithms (b) Adaptive algorithms

(c) Static algorithms (d) Recursive algorithms

6. ICMP is primarily used for

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

7. 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

8. The port number which is used for Remote procedure call in UDP is

(a) 123 (b) 111 (c) 161 (d) 25

9. 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

10. A DNS --------- servers gets its data from another DNS server

(a) Primary (b) Secondary  (c) Root (d) All the above

PART - B (5 x 2 = 10 Marks)

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

12. What is transceiver?

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) Explain about Framing and its types . (16)

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17. (a) Explain the physical properties of Ethernet 802.3 with necessary diagram of Ethernet

transceiver and adaptor . (16)

Or

(b) Explain about the FDDI with required diagrams. (16) .

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

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

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(b) Explain Distance Vector Routing with suitable example. (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) Elaborate about the RSA algorithm and give an one example. (16)