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Question Paper Code: 12044

M.E. DEGREE EXAMINATION, DECEMBER 2013.

First Semester

Computer Science and Engineering (with Specialization in Networks)

01PNE102- TCP/IP

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions.

PART A -   (10 x 2 = 20 Marks)

1. What is the use of BOOTP?

2. What do you mean by RFC?

3. Compare Static routing and Dynamic routing.

4. What do you mean by Best effort delivery System?

5. What is a Port number? Mention the range of Pre-defined port numbers.

6. Define Piggybacking.

7. Define the term QoS.

8. What are the advantages of using Switching with IP?

9. Compare IPV4 with IPV6.

10. Define different QoS metrics.

PART - B (5 x 14 = 70 Marks)

11. (a) (i) Describe about the network architecture with diagram.   (7)

       (ii) Write a note on ARP with its frame format.   (7)

Or

    (b) (i) Explain in detail about DHCP.   (7)

(ii) Discuss about Classful addressing scheme. (7)

12. (a) (i) Describe Indirect Delivery mechanism for forwarding IP Datagram. (7)

(ii) Give a detail description about ICMP. (7)

Or

(b) Explain the protocols in detail which is based on Link State Routing and Distance Vector Routing. (14)

13. (a) Describe TCP Connection Establishment and Termination using state transition Diagram. (14)

Or

(b) (i) List the merits and demerits of keep alive timers. (7)

(ii) Explain the different types of congestion control mechanisms at the transport layer. (7)

14. (a) Write a note on different Switching technologies and the working principle of MPLS. (14)

Or

(b) Explain Traffic Engineering in detail. Also discuss its limitations. (14)

15. (a) Describe in detail about IPSec. Also specify the services provided by IPSec. (14)

Or

(b) Discuss in detail about the different approaches to support QoS. (14)

PART - C (1 x 10 = 10 Marks)

16. (a) (i) One ICMP message, reports a destination port unreachable error. How can TCP detect the error in the destination port? (4)

(ii) A window Holds bytes 2001 to 5000. The next byte to be sent is 3001. Draw the figure to show the situation of the window after the following two events.
- An ACK Segment with the ack no 2500 and Window size advertisement 4000 is received.
- A segment carrying 1000 bytes is sent. (6)

Or

(b) If all Traffic require QoS reservation, would service be better or worse? Explain. (10)

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