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

Question Paper Code: 42208

M.E. DEGREE EXAMINATION, NOV 2016

First Semester

Computer Science and Engineering

(Common to Computer Science and Engineering [with specialization in networks])

14PNE518 – TCP/IP DESIGN AND IMPLEMENTATION

(Regulation 2014)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions.

PART A - (5 x 1 = 5 Marks)

1. What protocol is used to find the hardware address of a local device?

   (a) RARP (b) ARP (c) IP (d) ICMP

2. IP routing is supported by

   (a) IGMP (b) ICMP (c) FTP (d) SNMP

3. Urgent data requires urgent pointer field as well as the URG bit in which field

   (a) Control (b) Offset (c) sequence number (d) none of these

4. Which command displays RIP routing updates?

   (a) show IP route (b) debug IP rip
   (c) show protocols (d) debug IP route

5. Which is connectionless, unreliable datagram protocol that is primarily responsible for addressing and routing packets between hosts?

   (a) IPV4 (b) IPV6 (c) IPV4 and IPV6 (d) none of these

PART - B (5 x 3 = 15 Marks)

6. Differentiate ARP and RARP.
7. State the significance of default routes.
8. What is persistant timer?
9. State the limitations of traffic engineering.
10. Mention the enhanced features of IPV6.

PART - C (5 x 16 = 80 Marks)

11. (a) Give a brief explanation about TCP/IP network architecture. Compare it with OSI model. (16)

Or

(b) Explain the principle of assigning dynamic IP address by DHCP in detail. (16)

12. (a) With suitable example explain IP routing. (16)

Or

(b) State the working principles of ICMP and IGMP. (16)

13. (a) With suitable illustration explain the different fields in TCP Header. (16)

Or

(b) Explain about flow control and adaptive retransmission policy used in TCP. (16)

14. (a) Discuss in detail about the signaling protocols of the IP. (16)

Or

(b) Discuss in detail about MPLS operation. (16)

15. (a) Compare IPv6 with IPv4. Explain the strategies used for the transition from IPv4 to IPv6. (16)

Or

(b) State the different modes of IP security and explain any one in detail. (16)

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