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Question Paper Code:U2914

M.E. DEGREE EXAMINATION, NOV 2023

Professional Elective

Communication Systems

21PCM514- NETWORK MANAGEMENT SYSTEM

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Analyze the network, system and service management such as “Case of the Footprint” and “Generally managed network issues.” With an real time example. CO3- Ana (20)

Or

- (b) You are given a class B IP address of 145.45.x.y for your network node. As a network engineer, you are asked to configure your network for 126 subnets. (Remember that 0 and 1 are reserved.) CO3- Ana (20)
1. How would you configure your address for sub nets and hosts?
 2. What is the maximum number of hosts that each subnet can accommodate?

2. (a) An information model is concerned with the structure and storage of information. Illustrate the information model of OSI network management model. CO3- Ana (20)

Or

- (b) A router with IPv4 address 125.45.23.12 and Ethernet physical address 23:45: AB: 4F:67: CD has received a packet for a host destination with IP address 125.11.78.10. Show the entries in the ARP request packet sent by the router. Assume no subnetting. CO3- Ana (20)

3. (a) One of the key features of SNMPv3 is the modularization of architecture and documentation. Give the documentation architecture of SNMPv3 and compare with other versions. CO1- U (20)

Or

- (b) SNMPv2 structure of management has been divided into three CO1- U (20)

parts such as module definitions, object definitions and notification definition. You have to illustrate the SNMPv2 management information base. (It is necessary to include the following terms such as MIB tree from the system group in SNMPv2, SNMPv2 system group and information for notification in SNMPv2).

4. (a) Discuss about the method of SNMP network management with web-based development. CO2- U (20)
- Or
- (b) Explain in detail about extensible markup language based network management technology. CO2- U (20)
5. (a) Web based enterprise management standard (WBEM) consist five components. List the components of WBEM and elaborate on the architecture of WBEM. CO4- Ana (20)
- Or
- (b) Analyze about XML-based approach and XML - WBEM approach to network management and its current status. CO4- Ana (20)