M.E. / M.Tech.- DEGREE EXAMINATIONS, NOV / DEC 2025
Third Semester
M.E.-Computer Science and Engineering (With Specialization in Networks)
24PCNEL301 - NETWORK MANAGEMENT
Regulations - 2024

Duration: 3 Hours   Max. Marks: 100

PART - A (MCQ) (10 × 1 = 10 Marks)
Answer ALL Questions

		Marks	K-Level	CO
1.	Which layer is responsible for process to process delivery in a general network model? (a) network layer (b) transport layer (c) session laye (d) data link layer	1	K1	CO1
2.	The Common Management Information Protocol (CMIP) is a protocol associated with which network management model? (a) TCP/IP (SNMP) Model (b) Telecommunication Management Network (TMN) Model (c) OSI Network Management Model (d) Broadband Network Management Model	1	K1	CO1
3.	What is the default VLAN on most switches? (a) VLAN 100 (b) VLAN 1 (c) VLAN 10 (d) VLAN 999	1	K1	CO2
4.	What is the primary purpose of SNMP in an ATM network management context? (a) To provide high-speed data transmission within the ATM network (b) To replace the ATM signaling protocols (UNI, PNNI) (c) To offer a standardized, application-layer protocol for monitoring and managing ATM devices (d) To manage the physical layer connections exclusively	1	K1	CO2
5.	In SNMPv1, what is a major security issue with the "community string"? (a) It is only used for authentication and not for access control (b) It is sent in plaintext over the network (c) It is limited to a length of 8 characters (d) t is not supported in SNMPv2	1	K1	CO3
6.	What is the primary function of a Management Information Base (MIB) in SNMPv2? (a) To act as a communication agent between a manager and a managed device (b) To define the security parameters for SNMP communication (c) To define a structured database of managed objects for a device (d) To configure the network interface of a managed device	1	K1	CO3
7.	What is the main purpose of a network management tool's mapping feature? (a) To store accounting information (b) To display the connections between hardware components (c) To provide a user interface for remote access (d) To perform security audits	1	K1	CO4
8.	What does EMS stand for? (a) Enterprise Monitoring System (b) Enterprise Management System (c) Employee Management System (d) Economic Management System	1	K1	CO4
9.	Which of the following is a primary function of an NMS with a web-based interface? (a) To replace all physical network cables (b) To provide a graphical user interface for network monitoring and management (c) To automatically install new network hardware (d) To create user accounts for the network	1	K1	CO5
10.	How do Storage Administrators ensure secure access to storage devices in a SAN? (a) By using Zoning (b) By putting a physical lock on the storage device (c) By encrypting all data (d) All of the above	1	K1	CO5

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create   **14126**

PART - B (12 × 2 = 24 Marks)
Answer ALL Questions

11. List the two standards bodies for developing standards for network management.	2	K1	CO1
12. State about Managed Object Class and Instance.	2	K1	CO1
13. Summarize the significance of Broadband services.	2	K2	CO2
14. Mention the role of SNMP in ATM Management.	2	K1	CO2
15. Give the structure of SNMPv2.	2	K1	CO3
16. Define fault management.	2	K1	CO3
17. List some of the Network Management Tools.	2	K1	CO4
18. State the importance of Commercial Network management.	2	K1	CO4
19. What do you mean by Storage Area Network?	2	K1	CO5
20. What does WBEM stand for?	2	K1	CO5
21. Name any two advantages of using Embedded Web-Based Management.	2	K1	CO5
22. What is LAN Emulation (LANE) in ATM networks?	2	K1	CO2

PART - C (6 × 11 = 66 Marks)
Answer ALL Questions

23.	a) Discuss with a neat sketch, OSI Network Management Model in detail.	11	K2	CO1
	OR			
	b) Explain in detail about Macros Functional Model CMIP/CMIS.	11	K2	CO1
24.	a) Illustrate in detail about ATM Network Reference Model with a neat sketch.	11	K2	CO2
	OR			
	b) Discuss in detail about ATM digital Exchange interface Management.	11	K2	CO2
25.	a) Write short notes on: (i) SNMP Communication Model (ii) SNMPv2 System Architecture	11	K2	CO3
	OR			
	b) Discuss the impact the Policy Based Management in detail.	11	K2	CO3
26.	a) Elaborate the salient features of Network Statistics Measurement Systems.	11	K2	CO4
	OR			
	b) (i) Compare System Management and Enterprise Management with suitable examples.	5	K2	CO4
	(ii) Compare different types of Network Management Tools.	6	K2	CO4
27.	a) Discuss in detail about Embedded Web based Management with suitable example.	11	K2	CO5
	OR			
	b) Elaborate in detail about Management of a SAN in detail.	11	K2	CO5
28.	a) Explain in detail about the Windows Management instrumentation.	11	K2	CO5
	OR			
	b) Discuss the Web-Based Enterprise Management architecture, and list its applications.	11	K2	CO5