

Roll.No.

25UCSCT5007

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai - 600 044.

B.Sc.Computer Science - END SEMESTER EXAMINATIONS - NOVEMBER 2025
SEMESTER - V

25UCSCT5007 - Network Management

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Explain the Structure, address types of IPv4 and IPv6 addressing in detail.
2. Relate how CDP/LLDP helps in device discovery and prepare a sample configuration.
3. Describe how routers determine the best path and illustrate the role of routing tables in packet forwarding.
4. Explain Standard ACLs and how they filter traffic based on source IP.
5. Describe how Network Address Translation (NAT) works in a TCP/IP network.
6. Illustrate how administrative configurations are performed on Cisco routers and switches.
7. Classify the different categories of multi-area OSPF components and their role.
8. Conclude network security roles in the form of perimeter, firewall, and internal routers in security.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Explain the OSI/ISO Reference Model with process of Transmission of each node with example.
10. Distinguish between access and trunk port errors and justify the role of tools used for troubleshooting VLAN issues.

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11. Evaluate common Telnet connectivity issues, distinguish between authentication and network layer. problems
12. Apply a configuration plan for OSPF routing Protocols and their operations.
13. Justify the security measures of the access layer, recommend best practices to mitigate threats.
