

Roll.No.

25UCSCT5E06

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

25UCSCT5E06- Network Management

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

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

1. Discuss the Cisco Three-Layer Hierarchical Model and highlight its advantages in designing scalable
2. Explain the purpose of Cisco IOS to implement the Command-Line Interface (CLI).
3. Describe how EIGRP discovers neighbours, calculates metrics, and maintains routing tables.
4. Explain the concept of Access Lists (ACLs) in Cisco networks.
5. Illustrate the concept of VLANs and how to improve VLAN *N/w* performance.
6. Relate the use of Telnet for remote device management, Pros & cons and limitations.
7. Classify the types of OSPF areas in a multi-area network, determine their roles.
8. Examine the Quality of Service (QoS) and trust boundaries such as traffic classification, queuing, shaping, and policing.

Section C

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

9. Explain the OSI Reference Model in detail and how they interact during data communication in an internetwork.
10. Analyse the working of the High-Level Data Link Control (HDLC) protocol. Illustrate the structure of an HDLC frame
11. Classify the differences between Layer 2 and Layer 3 switching. Recommend scenarios for their use

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12. Apply RIP routing protocols in a network. Relate their operations and prepare a configuration plan for basic routing between three routers.
13. Compare HSRP, VRRP, and GLBP in terms of their operation and redundancy, and evaluate their role in implementing First Hop Redundancy Protocols (FHRPs) in a network.
