



End Term (Odd) Semester Examination November 2025

Roll no.....

Name of the Course and semester: Diploma CS Vth

Name of the Paper: Network Management and Administration

Paper Code: DTCS 503

Time: 3 hours

Maximum Marks: 100

Note:

- (i) All the questions are compulsory.
- (ii) Answer any two sub questions from a, b and c in each main question.
- (iii) Total marks for each question is 20 (twenty).
- (iv) Each sub-question carries 10 marks.

Q1. (2X10=20 Marks)

- a. Explain Centralized and Distributed architectures of Directory Services. Also, describe the key design considerations of a directory service, including scalability, performance, flexibility, and availability. (CO1)
- b. What is the X.500 Directory Access Protocol (DAP)? Explain its key features and working with a neat diagram. (CO1)
- c. Explain Remote Network Access with a neat labeled diagram. Briefly differentiate between PSTN and ISDN. (CO1)

Q2. (2X10=20 Marks)

- a. What is DHCP? Explain its advantages and describe the DORA process with a simple labeled diagram. (CO2)
- b. What is DNS? Explain its hierarchical structure and the process of DNS name resolution with an example. (CO2)
- c. What is Network Printing? Differentiate between locally connected and shared printers and write any two advantages of printer sharing. (CO2)

Q3. (2X10=20 Marks)

- a. Explain the key factors to consider while designing a computer network such as users, services, and security. (CO3)
- b. Explain any three types of network topologies with neat diagrams. (CO3)
- c. What is Windows Server 2003? Explain any two server roles such as DHCP, File, or Print Server. (CO3)

Q4. (2X10=20 Marks)

- a. Explain the process of creating, modifying, and deleting user accounts in Windows Server 2012/2016. (CO4)
- b. What are Security Groups in Windows Server? Explain their role in managing user access with examples. (CO4)



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c. Write short notes on:

- i. Steps to set up and share a network printer.
- ii. Importance of performing regular backups in Windows Server 2012/2016. (CO4)

Q5. (2X10=20 Marks)

- a. What is Network Troubleshooting? Explain its main advantages and steps such as segmenting, isolating, and setting priorities. (CO5)
- b. Explain Internal Network Security and how account security and user education help maintain it. (CO5)
- c. Differentiate between Internal and External Security. Write any four preventive measures to protect networks from external threats. (CO5)