Graphic Era
HILL UNIVERSITY
Established by an Act of the State Legislature of Uttarakhand (Adhiniyam Sankhya ...
University under section 2(f) of UGC Act 1956

Term Evaluation (Odd) Semester Examination September 2025

Roll no...........................

Name of the Course: Diploma CS
Semester: Vth
Name of the Paper: Network Management and Administration
Paper Code: DTCS 503
Time: 1.5 hour   **Maximum Marks: 50**

Note:
   (i)   Answer all the questions by choosing any one of the sub-questions
   (ii) Each question carries 10 marks.

Q1.   (10 Marks)   (CO1)
a. What are Directory Services? What are the advantages of using Directory Services? Write about different types of directory services.
<p align="center">OR</p>
b. Explain the roles of Network Administrator, Network Engineer, and Network Architect. Highlight their key responsibilities and bring out the differences with suitable examples.

Q2.   (10 Marks)   (CO1)
a. What is X.500 Directory Access Protocol? Explain its key concepts. Also explain its working with the help of a neat diagram.
<p align="center">OR</p>
b. Write a short note on:
      a. Distinguished Name (DN)
      b. Relative Distinguished Name (RDN)
      c. LDAP
      d. Globally Unique Identifiers (GUIDs)

Q3.   (10 Marks)   (CO1)
a. What is Remote Network Access and why do we need it? Draw a simple diagram showing how Remote Network Access works.
<p align="center">OR</p>
b. What do you mean by VPN? Draw a simple diagram showing a VPN connection. Explain any 2 VPN Protocols.

Q4.   (10 Marks)   (CO2)
a. Write a short note on DHCP. Also explain some uses of a DHCP server.
<p align="center">OR</p>
b. What is RARP? How is RARP different from ARP?

Q5.   (10 Marks)   (CO2)
a. What is the Domain Name System (DNS)? Explain its hierarchical structure, including Top-Level Domains, Second-Level Domains, and Subdomains. Also, describe the process of DNS Name Resolution.
<p align="center">OR</p>
b. Define Bootstrap Protocol. Differentiate between BOOTP and DHCP.

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Note For the question paper setters:
- Question paper should cover all the COs of the course.
- Please specify COs against each question.