



**DIPLOMA IN COMMUNICATION AND COMPUTER  
NETWORKING**

**CENTRALIZED QUESTION BANK**

**1055234520 - NETWORK LAB**

**DIRECTORATE OF TECHNICAL  
EDUCATION GOVERNMENT OF  
TAMILNADU**

## **DIPLOMA END SEMESTER / YEAR EXAMINATION – 2025**

**Course:** Communication and Computer Networking

**Subject :** Network Lab

**QP Code :**1055234520

**Time :** 3 Hours

**Date :**

**Session:**

**Max Marks:**100

### **Answer the following Questions**

1.     a) Do the following cabling works in a network
  - i) Cable Crimping
  - ii) Test the Crimped cable using a Cable tester.
- b) Configuration of Internet connection and use IPCONFIG, PING/ Tracert, and Net stat utilities to debug the Network issues.
2.     a) Implement the cross-wired cable and straight-through cable using the Clamping tool.
- b) Learn to use commands like tcp dump, net stat, ns look up, and trace route in Windows. Capture ping and trace route PDUs using a network protocol analyzer and Examine
3.     a) Installation and configuration of Network Devices: Modem, HUB, Switch, and Routers.
- b) Learn to use commands like ping, ns lookup, trace route, host, net stat, ARP, Dig, Route, Eth tool, Hostname, and ifconfig in Linux.
4.     a) Establish Peer to Peer network connection between two systems using Switch and Router in a LAN.
- b) Create a subnet with 5 systems and configure Host IP, Subnet Mask, Default Gateway, and DNS for the systems in that subnet. (TCP/IP Configuration).
5.     a) Creation of a simple network with two PCs using a hub.
  - i) Identify the proper cable to connect the PCs to the hub
  - ii) Configure workstation IP address information.
  - iii) Test connectivity using the Ping command
- b) Configure a DHCP server and firewall.
6.     a) Creation of various network topologies using network devices, cables, and computers.
- b) Transfer of files between systems in LAN.
7.     a) Do the following cabling works in a network:
  - i) Cable Crimping
  - ii) Test the Crimped cable using a Cable tester.

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- b) Creation of a simple network with two PCs using a hub.
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- b) Creation of various network topologies using network devices, cables, and computers.

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- 31 a) Creation of a simple network with two PCs using a hub.
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- 36      a) Creation of various network topologies using network devices, cables, and computers.
- b) Configure a DHCP server and firewall.

**Allocation of Marks**

<b>Sl. No</b>	<b>Description</b>	<b>Marks</b>
1	Aim(05) Program from Part A(30)	35
2	Aim(05) Program from Part B(30)	35
3	Executing anyone program (Part A or Part B)	15
4	Output	10
5	Viva Voce	05
<b>Total</b>		<b>100</b>