



**GURU GOBIND SINGH FOUNDATION'S
GURU GOBIND SINGH COLLEGE OF ENGINEERING AND
RESEARCH CENTRE, NASHIK**

Certificate

DEPARTMENT OF COMPUTER ENGINEERING

This is certify that Mr./Miss _____

of Third Year Computer Engineering Div. : _____ Roll No.: _____ University

Examination Seat No. : _____ has completed all the practical work/Term work in

Subject _____ satisfactorily in Department of Computer Engineering as

prescribed by the Savitribai Phule Pune University in the academic year 2021 – 2022

Practical In-charge

Head of the Department

Principal



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INDEX

Name of Subject: Computer Networks & Security (310244)

Expt No.	Name of Experiment	Date of Performance	Date of Completion	Grade/ Marks	Sign
1	Setup a wired LAN using Layer 2 Switch. It includes preparation of cable, testing of cable using line tester, configuration machine using IP addresses, testing using PING utility and demonstrating the PING packets captured traces using Wireshark Packet Analyzer Tool.				
2	Demonstrate the different types of topologies and types of transmission media by using a packet tracer tool.				
3	Write a program for error detection and correction for 7/8 bits ASCII codes using Hamming Codes or CRC.				
4	Write a program to simulate Go back N and Selective Repeat Modes of Sliding Window Protocol in Peer-to-Peer mode.				
5	Write a program to demonstrate Sub-netting and find subnet masks.				
6	Write a program to implement link state /Distance vector routing protocol to find suitable path for transmission.				
7	Use packet Tracer tool for configuration of 3 router network using one of the following protocol RIP/OSPF/BGP.				

Expt No.	Name of Experiment	Date of Performance	Date of Completion	Grade/Marks	Sign
8	Write a program using TCP socket for wired network for following a. Say Hello to Each other b. File transfer c. Calculator				
9	Write a program using UDP Sockets to enable file transfer (Script, Text, Audio and Video one file each) between two machines.				
10	Write a program for DNS lookup. Given an IP address as input, it should return URL and vice- versa.				
11	Installing and configure DHCP server and write a program to install the software on remote machine.				
12	Capture packets using Wireshark, write the exact packet capture filter expressions to accomplish the following and save the output in file: 1. Capture all TCP traffic to/from Facebook, during the time when you log in to your Facebook account 2. Capture all HTTP traffic to/from Facebook, when you log in to your Facebook account 3. Write a DISPLAY filter expression to count all TCP packets (captured under item #1) that have the flags SYN, PSH, and RST set. Show the fraction of packets that had each flag set. 4. Count how many TCP packets you received from / sent to Face book, and how many of each were also HTTP packets.				
13	Study and Analyze the performance of HTTP, HTTPS and FTP protocol using Packet tracer tool.				
14	To study the IPsec (ESP and AH) protocol by capturing the packets using Wireshark tool.				

Date of Submission:

Practical In-charge