

Programme(UG/PG) : UG

Semester : V

Course Code : PCC-CS593

Course Title : COMPUTER NETWORKS LAB



**UNIVERSITY OF ENGINEERING AND MANAGEMENT
KOLKATA**

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LIST OF EXPERIMENTS & SCHEDULE

COURSE CODE: PCC-CS593

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Exp. No.	Title	Week No.
1	Familiarization with <ul style="list-style-type: none">Networking cables (CAT5, UTP)Connectors (RJ45, T-connector)Hubs, Switches NIC Installation & Configuration (Windows/Linux) , Networking commands	1
2	Cisco Packet Tracer Lab – Basic Switch Configuration Hostname Password 1) Configure the hostname of the Switch as SW1 2) Set a message of the day (MOTD) banner for the switch- ***** Only Authorized Users Allowed ***** 3) Configure a line console password – India@123 enable secret password – Uem@123 4) FTP, DHCP Server Configuration	2
3	IPC (Message queue), Socket Program for Echo/Ping/Talkcommands <ul style="list-style-type: none">Write a program to find the IP address of the systemWrite a socket program for implementation of echo.Write a client-server application for chat using TCPWrite a program using client server socket programming: Client needs to authenticate itself by entering a server defined string as a password (like OTP) and then to say Hi to server. Server replies with a Hello. Press any key to exit.	3,4
4	File transfer Write a program to Perform File Transfer in Client & Server Using TCP/IP.	4

5	Remote Command Execution Write a program to implement Remote Command Execution (RCE).	5
6	Create a socket (UDP) Write a program to implement simple client-server application using UDP.	6
7	Simulation of ARP Web page downloading TCP Module Implementation	7
8	Implementation of RMI Write a socket program for implementation of client program in c language and server program in java language. Write a client server socket programming, server stores a TXT file consisting of State Name and Capital city. Client will send 'State Name' as request, and server should respond with matching 'Capital City' and vice-versa, if found else adds this entry to the TXT file. Connection should terminate only if client terminates it. I/P : West Bengal O/P : Kolkata OR I/P : Kolkata O/P : West Bengal	8
9	Case study of different routing algorithms	9
10	Implement the data link layer framing methods such as character count, character stuffing and bit stuffing Write a client server socket programming: write a client-server Cyclic redundancy check (CRC) program steps to follow: (a) Client sends a message to server with an appended CRC. (b) Server checks the data for any error and accepts it. (c) Server replies with 'good data' / 'bad data' depending upon there is no error on with error. (Server and client will share a common divisor of 16 bit CRC)	10,11
11	Implement on a data set of characters the three CRC polynomials CRC 12, CRC 16 and CRC CCIP	11