Programme(UG/PG)   : UG

Semester   : V

Course Code   : PCC-CS593

Course Title   : COMPUTER NETWORKS LAB

UNIVERSITY OF ENGINEERING AND MANAGEMENT KOLKATA

University Area, Plot No III-B/5, Main Arterial Road, New Town
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LIST OF EXPERIMENTS & SCHEDULE

COURSE CODE: PCC-CS593

COURSE TITLE: COMPUTER NETWORKS LAB

Exp. No.	Title	Week No.
1	Familiarization with • 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 **(YouTube video link for first 3 - https://youtu.be/ZMC1YJB8CLs)** 4) FTP, DHCP Server Configuration **(FTP- https://youtu.be/Mk5WUsHOK0Y , DHCP- https://youtu.be/mM5DcgSCl3g)**	2
3	IPC (Message queue), Socket Program for Echo/Ping/Talk commands • Write a program to find the IP address of the system (**https://youtu.be/s2nOLjTd094**) • Write a socket program for implementation of echo. (**https://youtu.be/jgaQAIP4toU**) • Write a client-server application for chat using TCP (**https://youtu.be/7WrXc7Pwv94**) • Write 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. (**https://youtu.be/wCCXBXm00VI**)	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. (**https://youtu.be/oXAucHQrHjU**)	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