

Indian Institute of Information Technology, Allahabad

Course: Networking Concepts

M.Tech. (IT) – 1st Semester

Lab Assignment #5

Assignment Date: 12/11/2025

Instructor: Dr. Vijay K. Chaurasiya & Dr. Kesav Ram Kaza

Note: Implement the programs in C/C++ or Python.

1. Write a client-server program using stream socket that provides file transfer facility using stream socket. Your client allows a user to request a file from the server. On request the server transfer the file to the client. The client process needs to create a file and store the data received through the client socket thereafter close the file. You may utilize the following call to realize the above problem: **open(), creat(), read(), write()**

Usage: `./a.out [server_address] [port_number] [file_name.txt]`

Where `server_address`: IP address of the server.

`Port_number`: is the port number of the server socket.

`file_name.txt` is the name of requested file.

`receive.txt` is the name of the file in which client store the received file.

2. Implement concurrent server for the above FTP application. A concurrent server is a server which can serve any number of clients concurrently. You may utilize the following call to realize the above problem:

- **fork()**