# Computer Networks Assignment 1

## Socket Programming

### January 15, 2018

Allowed languages: C, C++

# 1   Problem Statement

## 1.1   A basic server and client using sockets

The server and client will be two different codes which will be run in different directories. For example, let the server directory contain: file1.txt, file2.txt, file3.txt

The client will create a connection to the server and send requests to download files to the client directory. It will write the files into its own directory.

Error handling such as requesting missing files must be handled.

## 1.2   Persistent and Non Persistent connections

Use both persistent (using the same socket to transfer multiple files) and non persistent connections while downloading files. Compare the times taken to download multiple files.

You can also use python for this part.

# 2   Clarifications

1. Error scenarios must be handled. Programs crashing during evaluation will be penalized.

2. Using external libraries is not allowed. Sockets must be used.

3. Plagiarism in any form shall not be tolerated.

4. A viva will be taken during evaluation

# 3   Grading

1. Socket programming: 35 points

2. HTTP connections: 35 points

3. README, readability of code (comments): 10 points

4. Viva: 20 points

# 4   Submission format

Create a README file. This file must contain the roll numbers of both members, as well as instructions to run the code. Compress your codes to a tarball and upload it to Moodle.

# 5   Help

A short tutorial session will be given for brief understanding of the question.