

Computer Networks

Fall 2023

Assignment#1 (5K & 5J)

Due Date: Tuesday, 12 September, 2023 during the lecture

Submission Mode & Time: Handwritten solutions to be submitted during the lecture.

Please note the following:

1. No exceptions to the above date and time will be allowed. Inability to submit the assignment by the required time will result in zero marks.
2. To ensure self-completion of assignments and discourage plagiarism, the instructor or the relevant TA may randomly contact you and ask for an explanation of your answers. Where plagiarism and/or cheating is evident, you will be referred to the departmental disciplinary committee. In extreme cases of plagiarism an F may be awarded immediately with further referral to university disciplinary committee.
3. All solutions must be **hand-written**.
4. **Assignment Solution Submission:** In case of **in person / physical lectures at the campus**, hard copy of the hand-written assignment's solutions will be submitted by **hand** by each student to the Instructor / TA directly during the lecture on the due date.

PART-1

Use the following text for completion of this part of the assignment:

Computer Networking - A Top-Down Approach 8th Edition by Kurose & Ross.

Solve the following problems from the back of **Chapter 1**. Every Question has equal marks i.e., **(4*10 =40 marks)**

Review Questions:

R12, R19, R22, R24, R25

Problems:

P6, P7, P20, P28, P31

PART-2

Q. Calculate the following delays

[MARKS:10]

(a). Find the Transmission Delay if the bandwidth is 5 Mbps and the number of bytes in the packet is 2500. [5]

(b) Find the propagation delay if a packet is sent through an optical fiber and the distance between the source and destination is 2000 km. [5]