

# Computer Networks – Fall 2020

## Assignment # 3

Due Date: 11/11/2020

Time: 5 pm

**You are expected to attempt these questions yourself.**

**You may be called for evaluation of this assignment and you will have to justify your solutions before the course instructors and the TA. Failure to justify your answers will result in negative marks.**

**You can expect a class presentation for your solution where you will have to solve the questions in front of the class. You can expect to have cross questioning from the instructor, TA or classmates.**

**Severity of the plagiarism can result in F as well.**

Use Computer Networking - A Top-Down Approach 6<sup>th</sup> Edition for this assignment

### **Part a**

Solve the following problems from the back of **Chapter 3** and submit your solutions on google classroom. [You can provide scanned copy of your hand written work if you find it feasible, however, no hardcopy will be accepted because of potential spread of Covid-19]. [80 marks]

P8, P14, P18, P22, P28, P32, P40, P46

### **Part b** Download following paper on TCP Congestion Control [40 marks]

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.24.622&rep=rep1&type=pdf>

Read initial few pages of the paper and answer the following questions

- a. Consider Figure 3 and 4 in the paper and explain in detail the working of TCP in both the figures. While answering your questions, explain Why TCP has a different behavior in these two type of implementations.
- b. Answer part a again for Figure 5 and 6.