Assignment # 1 (For BS-CS: Section C and N)
(CS-3001 Computer Networks – Fall-2022)

Due Date and Time: Tuesday. 13th September, 2022 (09:55 am) Marks: 10

Instructions:

- *Late assignment will not be accepted*
- *Only handwritten attempt will be graded, i.e., printed attempts will not be graded*
- *Only the attempts submitted to Mr. Fahad or Mr. Amir in the Academic office (till the due date & time) will be considered, i.e., the submissions that will be slided beneath instructors' office doors or submitted elsewhere will not be graded.*
- *There will be no credit if the given requirements are changed*
- *Your solution will be evaluated in comparison with the best solution*
- *Whenever a calculation is involved, your solution should show complete steps and a final answer. There will be significant marks for the correct final answer (as far as assignments are concerned).*
- *You must write your roll number, name, and section (CNet Course section) on your submitted attempt.*
- *In case of unavailability to submit the assignment in-person on the submission day, you must submit it either before the submission day or email the scanned (using, e.g., CamScanner) copy of the handwritten attempt to your theory course instructor before the deadline*

For the problems below, consider your roll number.

Problem 1: [3 Marks]

Solve P5 of chapter 1 of the textbook (8th Edition) after doing the following modification:
In the problem, a propagation speed of 100 km/hr is assumed. You should not consider this value and instead you should consider the propagation speed equal to:

50 + (your roll number (excluding the batch part) modulus 20) km/hr.

For example, if your roll number is 20i-0125, then the propagation speed is 50 + (125 modulus 20) = 55 km/hr.

Problem 2: [3 Marks]

Solve P10 of chapter 1 of the textbook (8th Edition) after doing the following modification:
In the 7th line of the problem, replace the packet size of 1500 with the packet size equal to

1200 + (your roll number modulus 25) bytes.

For example, if your roll number is 20i-0125, then the packet size is 1200 + (125 modulus 25) = 1200 bytes.

Problem 3: [4 Marks]

Solve P12 of chapter 1 of the textbook (8th Edition) after doing the following modifications:

- In the 5th line of the problem, replace 1500 with "1100 + (your roll number modulus 50)".
  - For example, if your roll number is 20i-0125, then the value is 1100 + (125 modulus 50) = 1125.
- In the 7th line of the problem, replace L with 2L.