

**BRAC UNIVERSITY**  
**Department of Computer Science and Engineering**  
**CSE421: Computer Networking**

**Quiz: 03**  
**Summer 2025**

**Total Marks: 10**  
**Time: 20 minutes**

Name:

ID:

**Q1.** At a given moment of data transferring, the client sent the C1 segment with sequence number **1001** and acknowledgment number 4001. The data sent through **C1, C2, C3, S1, S2, S3, S4** are **105, 179, 211, 320, 120, 310** and **450 Bytes** respectively.

- a) Calculate the sequence number and acknowledgment number of the S4 segment. [4 Marks]

ISN client=**1001**

ISN server=**4001**

Seq=4001+**320+120+310**

Ack=1001+**105+179+211** =

- b) Calculate the acknowledgment number of the ACK-1 segment. [2 Marks]

Ack = 4001+**320** =

- c) Calculate the acknowledgment number of the ACK-2 segment. [2 Marks]

Same as ACK-1:

Ack = 4001+**320** =

- d) Calculate the acknowledgment number of the ACK-3 segment if the Go-Back-N sliding window protocol is used. [2 Marks]

Ack=4001+**320+120**

