

**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 1026 and acknowledgment number 2064. The data sent through C1, C2, S1, S2, S3 are 150, 354, 199, 150 and 330 Bytes, respectively.

- I. Calculate the sequence number and acknowledgment number of the S3 segment. [4]

**S3:**

**Sequence:  $2064 + S1 + S2 = 2064 + 199 + 150 = 2413$**

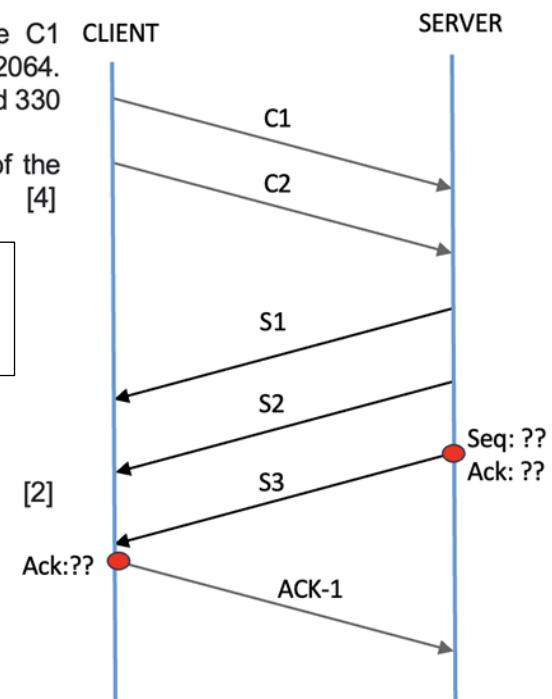
**Acknowledgement:  $1026 + C1 + C2 = 1026 + 150 + 354 = 1530$**

- II. Calculate the acknowledgment number of the ACK-1 segment. [2]

**ACK-1:**

**Sequence: 1530**

**Acknowledgement:  $2413 + S3 = 2413 + 330 = 2743$**



- Q2.** Show the flow-diagram of **TCP half-close connection**. [4]

See the slide.