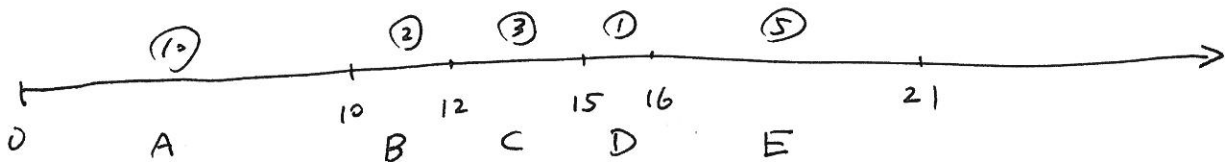**CSCI 460 Operating Systems**

Participation Test 2

Instructions: Write your name above. Relax and attempt the problems below. This is NOT a quiz and participation credit will be given for any sincere attempt. (Later, solutions will be posted on the course webpage.) Turn in the sheet at the end of the class to receive your participation credit.

This question is on uniprocessor scheduling. Compute the average waiting time and average turnaround time for each of the following process scheduling algorithms. Throughout this question, 1 slice = 2 ms.

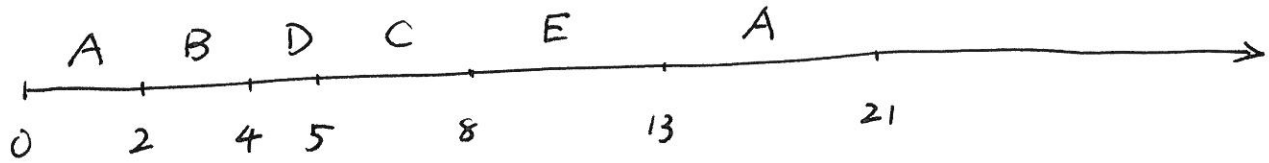| Job #	Arrival time (ms)	Time to finish (ms)
A	0	10
B	1	2
C	2	3
D	3	1
E	4	5

(1.1) FCFS (First Come First Serve).

$$AWT = \frac{(0-0) + (10-1) + (12-2) + (15-3) + (16-4)}{5} = 8.6 \text{ ms}$$

$$ATT = \frac{(10-0) + (12-1) + (15-2) + (16-3) + (21-4)}{5} = 12.8 \text{ ms}$$

(1.2) SRT (Shortest Remaining Time).

A   B   D   C   E   A

0   2   4 5   8   13   21

$$AWT = \frac{(13-2) + (2-1) + (5-2) + (4-3) + (8-4)}{5} = 4 \, ms$$

$$ATT = \frac{(21-0) + (4-1) + (8-2) + (5-3) + (13-4)}{5} = 8.2 \, ms$$