University of Dhaka

Institute of Information Technology (IIT)

Bachelor of Science in Software Engineering (BSSE)

Course: **CSE 401: Operating Systems**
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Lab 05

Consider the following set of processes, with the length of the CPU burst given in milliseconds:

Process	Burst Time	Priority
P1	2	2
P2	1	1
P3	8	4
P4	4	2
P5	5	3

The processes are assumed to have arrived at time 0 in the order P1, P2, P3, P4, P5.

Write four separate programs that implement the following scheduling algorithms and demonstrate using the process information given above as input:

1. First First-Come, First-Served (FCFS)
2. Shortest-Job-First (SJF) (nonpreemptive)
3. Priority Scheduling (non preemptive and larger priority number implies a higher priority)
4. Round-Robin (quantum from user input)

Your program should output the following:

- Gantt charts that illustrate the execution of the processes
- Turnaround time for each process
- Waiting time for each process
- Average turnaround time
- Average waiting time

If you are done, update your programs for the following input:

Process	Burst Time	Priority	Arrival
P1	20	40	0
P2	25	30	25
P3	25	30	30
P4	15	35	60
P5	10	5	100
P6	10	10	105