Republic of the Philippines
BATANGAS STATE UNIVERSITY
The National Engineering University
Alangilan Campus
Golden Country Homes, Alangilan Batangas City, Batangas, Philippines 4200
Tel Nos.: (+63 43) 425-0139 local 2222 / 2223
E-mail Address: cics.alangilan@g.batstate-u.edu.ph | Website Address:

http://www.batstate-u.edu.ph **College of Informatics and Computing Sciences**

ACTIVITY 1
Activity: Scheduling Algorithms (SJF and FCFS) Calculation

IT 412 – PLATFORM TECHNOLOGIES

1. Problem: First-Come, First-Serve (FCFS) Scheduling Algorithm
You are given the following **6 processes** with their **burst times** (in milliseconds) and **arrival times**:

Process	Arrival Time	Burst Time	Complexion Time	Turn Around Time **Formula= CT−AT**	Waiting Time **Formula= TAT−BT**
P1	0	6	6	6	0
P2	1	8	14	13	5
P3	2	7	21	19	12
P4	3	3	24	21	18
P5	4	4	28	24	20
P6	5	5	33	28	23
Average Turn Around Time **Formula= ∑TAT/ Number of Processes** Average Waiting Time **Formula= ∑WT/ Number of Processes**				18.5	13

Compute the Average Waiting time and Average Turn Around time.
Calculation Steps:
1.1 Create a Ready queue
1.2 Create a Gantt Chart: **| 0 | P1 | 6 | P2 | 14 | P3 | 21 | P4 | 24 | P5 | 28 | P6 | 33 |**
Execution Process

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2. Problem: Shortest Job First (Short Job First) Scheduling Algorithm (NON- Pre - Emptive)

You are given the following **6 processes** with their **burst times** (in milliseconds) and **arrival times**:

Process	Arrival Time	Burst Time	Complexion Time	Turn Around Time Formula= CT−AT	Waiting Time Formula= TAT−BT
P1	0	8	8	8	0
P2	1	4	17	16	12
P3	2	9	38	36	27
P4	3	5	22	19	14
P5	4	2	10	6	4
P6	5	7	19	24	17
P7	6	3	13	7	4
Average Turn Around Time **Formula= ∑TAT/ Number of Processes** Average Waiting Time **Formula= ∑WT/ Number of Processes**				16.57	11.14

Compute the Average Waiting time and Average Turn Around time.
 Calculation Steps:
2.1 Create a Ready queue
2.2 Create a Gantt Chart: **| 0 | P1 | 8 | P5 | 10 | P7 | 13 | P2 | 17 | P4 | 22 | P6 | 29 | P3 | 38 |**
Execution Process