



TEST (Operating Systems 1)

Date : 03/05/2025

Duration: 30 minutes - No documentation

Exercise 1 : (5 Pts) (20 minutes)

The sequence of actions for jobs **A** and **B** is as follows:

Job A : Arrived at time 0	Job B : Arrived at time 1
➤ 2 Calculation units	➤ 4 Calculation units
➤ 7 I/O units	➤ 4 I/O units
➤ 2 Calculation units	➤ 1 Calculation units

Q1) Illustrate their execution for Uni-programming and Multi-programming systems.

a) Uni-programming System

CPU				.																							
QUEUE																											
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		

[illegible]

b) Multi-programming system

CPU 1																																
QUEUE																																
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							

[illegible]

Q1) Consider the set of 5 **processes** whose arrival time and burst time are given below :

Processes	Arrival time	Burst time	Priority
A	0	4	2
B	1	3	3
C	2	1	4
D	3	5	5
E	4	2	5

c) CPU scheduling policy is Priority Preemptive (Higher number represents higher priority)

[illegible][illegible]

Q2) Calculate the **Turnaround Time (TR)** for each process and the **Waiting Time (WT)** of the system in each of the two configurations.

[illegible]

Good Luck