

Evaluation 1

Operating System

Instructions: This test is designed to assess your proficiency in the topics of Operating System (taught till now). Please answer all questions to the best of your ability.

- 1) Consider a snapshot of the system with processes and their arrival and burst time as mentioned in the table below:

Process Id	Arrival Time(ms)	Burst Time(ms)
P1	0	1
P2	2	4
P3	4	6
P4	1	1
P5	6	6

Find out the following for each process using **FCFS(First Come First Serve)** and **Shortest Job First(SJF)** Scheduling.

- Waiting Time
- Turnaround Time
- Average Waiting Time
- Average Turnaround Time

- 2) Explain file system structure in linux. Also explain the function/use of different directories in the linux file system.

3) What are the different components of the Operating System?
Give a brief description about each component.

4) Answer following questions with respect to linux commands:

- a) How to print the present working directory path?
- b) How to go to a given directory (change the directory)?
- c) Create a file called "ctest". Modify the access permissions as: "user - rwx", "group - rx", and "others - nothing".
- d) What is the command to check username/userid on your machine?

5) Explain the following terms with respect to Operating System:

- a) Kernel
- b) GNU

6) What is a process? Explain different states of a process.

7) What is a Process Control Block? Explain use of different sections in a Process Control Block.