

## Marwadi University Faculty of Technology Department of Information and Communication Technology

## Assignment - 1

- 1. What is Operating System? Discuss role/functions of OS as a resource manager.
- 2. Identify various types of operating system and describe it with suitable example.
- 3. Describe RTOS its types with suitable examples.
- 4. Explain Monolithic, Micro Kernel and Layered system of Operating System Structure.
- 5. Classify operating system and Explain different views of operating system. Discuss various services (tasks) of OS.
- 6. Explain PCB in detail. Differentiate various types of schedulers.
- 7. What do you mean by thread? Explain threads with example. Write short note on Multithreading.
- 8. What is process? What are the different type of states of any process?
- 9. Find out the average waiting time and average turnaround time for given example for all CPU Scheduling algorithms FCFS, SJF,LJF, PRIORITY(Non primitive), SRTF, LRTS, ROUND ROBBIN, PRIORITY( Primitive).

**Note:** Higher number is higher priority.

Time quantum is 2 unit.

Process	Arrival Time	Burst Time/Service Time	Priority
P0	5	9	4
P1	7	8	7
P2	0	6	8
Р3	4	8	5
P4	2	5	4
P5	3	6	2

Prof Suhag Baldaniya subject: Operating System Subject Code: 01CT1409



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10. Find out the average waiting time and average turnaround time for given example for all CPU Scheduling algorithms — FCFS, SJF, LJF, PRIORITY(Non primitive), SRTF, LRTS, ROUND ROBBIN, PRIORITY(Primitive).

**Note:** lower number is higher priority.

Time quantum is 2 unit.

Process	Arrival Time	Burst Time/Service Time	Priority
Α	4	4	5
В	3	6	3
С	2	7	1
D	0	5	0
E	1	2	4

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