RTOS scheduling

Week 5 - Tutorial

RATE MONOTONIC (RM) SCHEDULING ALGORITHM

Tasks	Release time	Execution time	Time period
T1	0	0.5	3
T2	0	1	4
T3	0	2	6

1. Calculate the **total CPU utilization**.
2. **Explain** the **RM Scheduling Algorithm** of the processes.
3. Show the processes on **timing diagram**.

Hints..

Static priority-based preemptive scheduling algorithm

The shortest period = the highest priority

EARLIEST DEADLINE FIRST (EDF) SCHEDULING ALGORITHM

Tasks	Release time	Execution Time	Deadline
T1	0	1	4
T2	0	2	6
T3	0	3	8

Calculate the **total CPU utilization.**

Explain the **EDF Scheduling Algorithm** of the processes.

Show the processes on **timing diagram**.

Hints..

earlier deadline = highest priority;

EARLIEST DEADLINE FIRST (EDF) SCHEDULING ALGORITHM

Tasks	Arrival time	Execution time	Deadline
T1	0	4	40
T2	2	7	15
T3	5	10	20

Calculate the **total CPU utilization.**

Explain the EDF Scheduling Algorithm of the processes.

Show the processes on **timing diagram**.

Hints..

earlier deadline = highest priority;