Mumbai Education Trust's INSTITUTE OF ENGINEERING, BKC, NASHIK. DEPARTMENT OF COMPUTER ENGINEERING

Subject : SPOS

ASSIGNMENT NO – 04

Unit : IV

- 1. What is operating system. Explain function of OS.
- 2. Explain types of Operating System.
- 3. State the Operating System Components.
- 4. Draw & explain process state transition.
- 5. Draw & explain Process Control Block & Context switching.
- 6. Write short notes on Threads.
- 7. Difference between Process and Thread
- 8. Explain the Process Scheduling with neat diagram(types of scheduler).
- 9. Explain different types of Scheduling method with an example.

10.

Consider the following set of processes for preemptive SJF scheduling (Time slab 2) :

| Process Name | Arrival Time | Processing Time |
|-----------------|-----------------|--------------------|
| P1 | 0 | 3 |
| P2 | 1 | 5 |
| P3 | 3 | 2 |
| P4 | 9 | 5 |
| P5 | 12 | 5 |

11.

For the following set of processes calculate the average waiting time and turnaround time for FCFS, SJF and RR scheduling. Also draw Gantt chart.

| Process No. | Arrival time | Burst time |
|-------------|--------------|------------|
| 1 | 0 | 8 |
| 2 | TH- 1 UT- | 4 |
| 3 | 2 | 9 |
| 4 | 3 | 5 |