

BIRLA INSTITUTE OF TECHNOLOGY
DEOGHAR CAMPUS
QUIZ: FIRST

Name :

Roll. No:

SUBJECT: CS 239 Operating System

Time: 50 minutes

Sem.: IVth

Branch: CSE

Session: SP/24

Full Marks: 10

Instructions:

1. Attempts all the Questions.

2. Overwriting means Cancellation of question.

Set: A

Q 1. Blocked state becomes *suspend* state when swapped to disk. And this *suspends* state is divided into
The two states named as: [1mark]

(I)..... (II)

Q. 2. What is the key difference between MLQ and MLFQ scheduling? [1mark]

- a) MLQ allows processes to move between queues, while MLFQ does not
- b) MLQ does not allow movement between queues, while MLFQ does
- c) MLQ uses a single scheduling algorithm for all queues, while MLFQ does not
- d) MLQ is more flexible than MLFQ

Q.3. The address of the next instruction to be executed by the current process is provided by the
register..... [1 Mark]

Q. 4. Thread shares with other threads belonging to the same process its [1 Mark]

- (a) thread id (b) program Counter
- (c) register set and stack (d) code section and data section

Q. 5. Suppose that the following processes arrive for execution at the times indicated. Each process will run the listed amount of time.

Process	Arrival Time	CPU Burst Time
P1	0	7
P2	1	5
P3	2	3
P4	3	1
P5	4	2

Answer the following questions:

Draw the Gantt chart and calculate the average Turn-around time for the following
Scheduling algorithms.

- (a) Shortest Remaining Time (Preemptive SJF) Scheduling algorithm [2marks]
- (b) Round Robin scheduling algorithm. [2marks]

Q. 6. Consider the problem of scheduling the following sets of tasks (assume that all tasks arrive at time 0).

Task	Period	Execution Time
A	20	5
B	60	10
C	40	10
D	30	5

Prepare a schedule for Rate Monotonic Scheduling (RMS) for the tasks.

[2marks]