

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: B

Q. 1. Suppose that a process is in “Blocked” state waiting for some I/O service. When the service is completed, it goes to thestate. **[1 Mark]**

Q.2. Saving the state of the old process and loading the saved state of the new process is called

(a) Context Switch (b) Process State (c) PCB (d) program counter **[1 Mark]**

Q.3. Long Term Scheduler is known aswhile
Short Term scheduler is known as..... **[1 Mark]**

Q. 4. Kernel level threads supported and managed directly by the **[1 Mark]**

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	3
P2	2	6
P3	4	4
P4	6	5
P5	8	2

Answer the following questions:

Draw the Gantt chart and calculate the average waiting time for the following Scheduling algorithms.

(a) Highest Response Ratio Scheduling algorithm **[2marks]**

(b) Shortest Process Next (Non-Preemptive SJF) Scheduling algorithm **[2marks]**

Q.6. Consider the following Process Precedence graph. And process service time is given in the table. We assume that processes do not perform I/O operations and are serviced in a non-preemptive manner. The total of service times of the processes is 35 seconds. If the application has to response in 35 seconds. **[2marks]**

What is the deadline for the each process?

Process	P1	P2	P3	P4	P5	P6	P7
Service time (second)	5	4	3	7	8	5	3

