

Date: 27-March-23

## Quiz # 2: BSCS-4J

Marks:10

### Question # 1:

Consider three process, all arriving at time zero, with total execution time of 10, 20 and 30 units respectively. Each process spends the first 20% of execution time doing I/O, the next 70% of time doing computation, and the last 10% of time doing I/O again. The operating system uses a shortest remaining compute time first scheduling algorithm and schedules a new process either when the running process gets blocked on I/O or when the running process finishes its compute burst. Assume that all I/O operations can be overlapped as much as possible. For what percentage of does the CPU remain idle?

	Total Burst Time	I/O Burst	CPU Burst	I/O Burst
Process P1	10	2	7	1
Process P2	20	4	14	2
Process P3	30	6	21	3