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Mid-Term Examinations, November 2021

Programme	:	**B.Tech. – BCE, BCG**	Semester	:	**Fall 2021-2022**
Course	:	**Operating System**	Code	:	**CSE3003**
Faculty	:	**Dr. Abha Trivedi**	Slot/Class No.	:	**C11+C12+C13/0431**
Time	:	**1½ hours**	Max. Marks	:	**50**

Answer all the Questions

Q. No.	Question Description	Marks

1. Discuss the difference between symmetric and asymmetric multiprocessing. Also, write the advantages of single processor systems? **10**

2. Give reasons why main memory is useful. What problems do it solve? If main memory can be made as large as the device for which it is mapping why not make it that large and eliminate the device? **10**

3. Take possible cases to show that Peterson algorithm which is a two process solution satisfies all the three Critical Section protocols. **10**

4. What is the role of long-term scheduler, short-term scheduler and medium-term scheduler in Operating System? **10**

5. For the following set of process find average turnaround time, waiting time and response time using Gantt chart: **(5+5)**

  a) First Come First Serve

Process No.	Arrival Time	Burst Time
P1	5	10
P2	3	15
P3	0	8
P4	4	6

  b) Round Robin Scheduling (Time Quantum = 3 units)

Process No.	Arrival Time	Burst Time
P1	5	10
P2	3	5
P3	0	18
P4	4	6

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