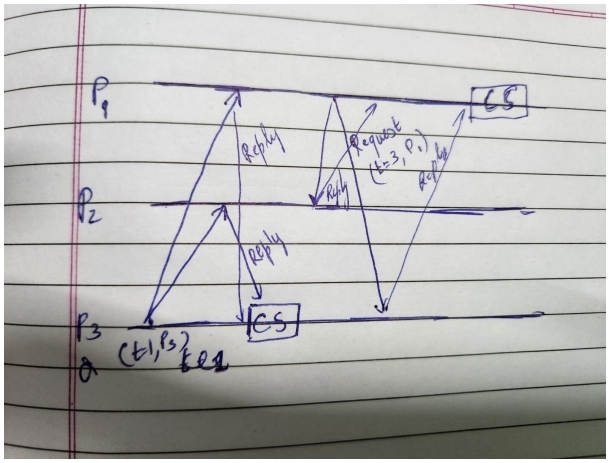
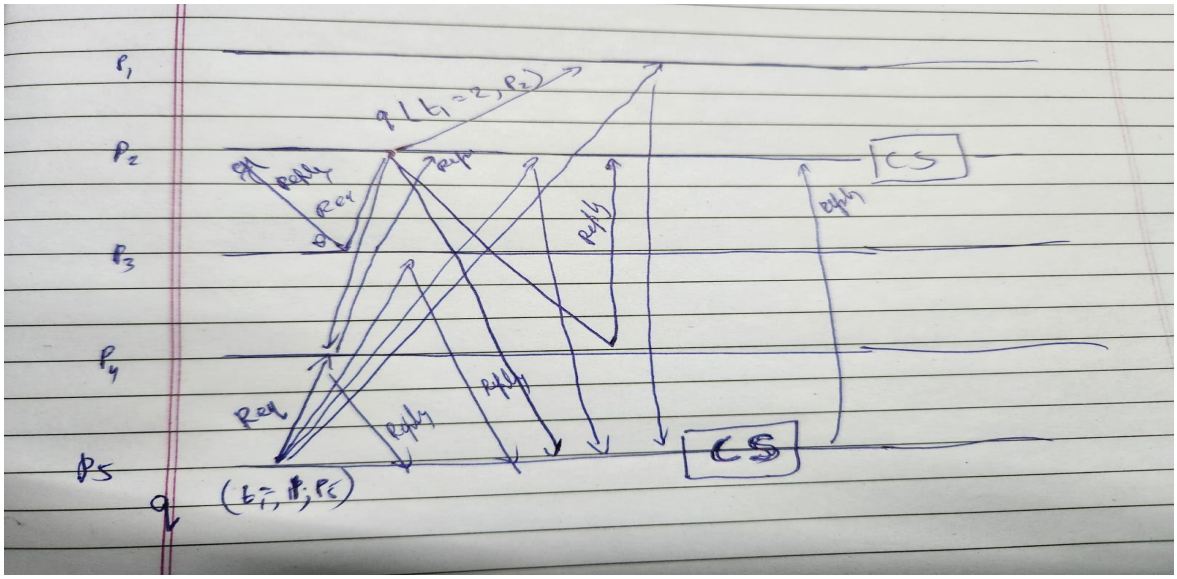
**Q1. Used Ricart Agarwala Algorithm and Lamport's Algorithm**

**Ricart Agarwala**
**Example 1**
**3 processes**
**P3 request at timestamp 1**
**P1 request at timestamp 3**




```
PS D:\#4 CSE CLG\8th SEM 2023\TDS\Assignment-2> g++ ricart_agarwala.cpp -o rs
PS D:\#4 CSE CLG\8th SEM 2023\TDS\Assignment-2> ./rs
Enter number of sites : 3
Enter number of sites which want to enter critical section: 2

Enter timestamp: 1
Enter critical_site number: 3

Enter timestamp: 3
Enter critical_site number: 1

Sites and Timestamp:
1 3
2 0
3 1

 Request from critical_site: 3
1 Replied
2 Replied

 Request from critical_site: 1
2 Replied
3 Deferred

Site 3 entered Critical Section
Site 1 entered Critical Section
PS D:\#4 CSE CLG\8th SEM 2023\TDS\Assignment-2>
```

**Example 2**
**5 processes**
**P3 request at timestamp 1**
**P1 request at timestamp 3**




```
PS D:\#4 CSE CLG\8th SEM 2023\TDS\Assignment-2> ./rs
Enter number of sites : 5
Enter number of sites which want to enter critical section: 2

Enter timestamp: 1
Enter critical_site number: 5

Enter timestamp: 2
Enter critical_site number: 2

Sites and Timestamp:
1 0
2 2
3 0
4 0
5 1

 Request from critical_site: 5
1 Replied
2 Replied
3 Replied
4 Replied

 Request from critical_site: 2
1 Replied
3 Replied
4 Replied
5 Deferred

Site 5 entered Critical Section
Site 2 entered Critical Section
PS D:\#4 CSE CLG\8th SEM 2023\TDS\Assignment-2>
```

**Lamport's Algorithm**

**Input: 3 Processes**