

# SCREENSHOTS

## Question 1

```
(base) Gokuls-MacBook-Pro:Q1 gokulsreekumar$ gcc q1_CI.c -o CI
(base) Gokuls-MacBook-Pro:Q1 gokulsreekumar$ ./CI
Marks for Student with ID-1 :
10
Marks for Student with ID-2 :
20
Marks for Student with ID-3 :
30
Marks for Student with ID-4 :
40
Marks for Student with ID-5 :
50
Sending Marks to Students...
Sent Student with ID: 1, 10.000000 marks
Sent Student with ID: 2, 20.000000 marks
Sent Student with ID: 3, 30.000000 marks
Sent Student with ID: 4, 40.000000 marks
Sent Student with ID: 5, 50.000000 marks
Sending Marks To TA....Sent
Waiting for Avg and Grades from TA..
Average Marks: 30.000000
Grades of Students Received:
Student ID 1: E
Student ID 2: B
Student ID 3: A
Student ID 4: S
Student ID 5: S
(base) Gokuls-MacBook-Pro:Q1 gokulsreekumar$
```

```
(base) Gokuls-MacBook-Pro:Q1 gokulsreekumar$ gcc q1_TA.c -o TA
(base) Gokuls-MacBook-Pro:Q1 gokulsreekumar$ ./TA
Marks Received:
Student ID: 0, Marks: 10.000000
Student ID: 1, Marks: 20.000000
Student ID: 2, Marks: 30.000000
Student ID: 3, Marks: 40.000000
Student ID: 4, Marks: 50.000000
Grades and Average Sent to CI
(base) Gokuls-MacBook-Pro:Q1 gokulsreekumar$
```

```
(base) Gokuls-MacBook-Pro:Q1 gokulsreekumar$ gcc q1_ST.c -o ST
(base) Gokuls-MacBook-Pro:Q1 gokulsreekumar$ ./ST
Mark of Student with ID: 1 is : 10.000000
Mark of Student with ID: 2 is : 20.000000
Mark of Student with ID: 3 is : 30.000000
Mark of Student with ID: 4 is : 40.000000
Mark of Student with ID: 5 is : 50.000000
(base) Gokuls-MacBook-Pro:Q1 gokulsreekumar$
```

## Question 2

```
(base) Gokuls-MacBook-Pro:Q2 gokulsreekumar$ gcc q2.c
(base) Gokuls-MacBook-Pro:Q2 gokulsreekumar$ ./a.out
Number of Processes Read From Input File: 5
Number of Resources Read From Input File: 3

Available Resources read from input File...
AllocTable Read From input File...
MaxTable Read from input File...

-----
Available Resources
3 3 2

-----
Alloc Table
0 1 0
2 0 0
3 0 2
2 1 1
0 0 2

-----
Max Table
7 5 3
3 2 2
9 0 2
4 2 2
5 3 3

-----
Need Table
7 4 3
1 2 2
6 0 0
2 1 1
5 3 1

-----
A Safe Sequence:
2 3 1 4 5

Sequence Read From File for Checking Safe:
1 2 3 4 5
NOT SAFE STATE

Sequence Read From File for Checking Safe:
2 3 1 4 5
SAFE STATE

Request Resources Read From File:
7 7 7
REQUEST IS NOT SAFE TO BE GRANTED

Request Resources Read From File:
1 0 2
REQUEST IS SAFE TO BE GRANTED

Request Resources Read From File:
1 0 0
REQUEST IS SAFE TO BE GRANTED

(base) Gokuls-MacBook-Pro:Q2 gokulsreekumar$
```

## Question 3

```
(base) Gokuls-MacBook-Pro:Q3 gokulsreekumar$ ./a.out
Philosopher 1 is thinking
Philosopher 2 is thinking
Philosopher 3 is thinking
Philosopher 4 is thinking
Philosopher 5 is thinking
Philosopher 2 is Hungry
Philosopher 1 is Hungry
Philosopher 3 is Hungry
Philosopher 4 is Hungry
Philosopher 5 is Hungry
Philosopher 2 takes fork 1 and 2
Philosopher 2 is Eating
Philosopher 4 takes fork 3 and 4
Philosopher 4 is Eating
Philosopher 1 putting fork 5 and 1 down
Philosopher 1 is thinking
Philosopher 3 putting fork 2 and 3 down
Philosopher 3 is thinking
Philosopher 5 putting fork 4 and 5 down
Philosopher 5 is thinking
Philosopher 1 is Hungry
Philosopher 3 is Hungry
Philosopher 5 is Hungry
Philosopher 4 putting fork 3 and 4 down
Philosopher 4 is thinking
Philosopher 2 putting fork 1 and 2 down
Philosopher 2 is thinking
Philosopher 3 takes fork 2 and 3
Philosopher 3 is Eating
Philosopher 1 takes fork 5 and 1
Philosopher 1 is Eating
Philosopher 2 is Hungry
Philosopher 4 is Hungry
Philosopher 1 putting fork 5 and 1 down
Philosopher 1 is thinking
Philosopher 5 putting fork 4 and 5 down
Philosopher 5 is thinking
Philosopher 3 putting fork 2 and 3 down
Philosopher 3 is thinking
Philosopher 3 is Hungry
Philosopher 4 takes fork 3 and 4
```