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PS 3

1. The state is safe A safe sequence would be P1, P0, P2, P3, P4
 Available

1	1	2	1

P1 Executes

2	2	2	1

P0 Executes

4	2	3	1

P2 Executes

5	3	3	1

P3 Executes

6	3	4	1

P4 Executes

6	4	4	2

2.
maximum claims

	R0	R1
P1	2	1
P2	2	1
P3	2	1
P4	2	1
P5	2	1

current allocation

	R0	R1
P1	1	1
P2	1	0
P3	1	0
P4	1	1
P5	1	0

you can not run the bankers algorithm on this since it is in dead lock.

3.

P1	P2	P3	P4	P5
0	10	11	13	14	19

P2	P4	P3	P5	P1
0	1	2	4	9	19

P2	P5	P1	P3	P4
0	1	6	16	18	19

| P1 | P2 | P3 | P4 | P5 | P1 | P3 | P5 | P1 | P5 | P1 | P5 | P1 | P5 | P1 |
0   1   2   3   4   5   6   7   8   9   10   11   12   13   14   19

SJF has the best turn around time and wait time.

4.

T1	T2	P2	T1

Time --->

Giving time T to task :	T1	T2	T3
T1	-2T/3	T/3	T/3
T2	-1T/3	-1T/3	2T/3
T3	0	0	0

At the level of schedulable tasks, the system is fair because each task is shared equally. At the level of processes, the system is not fair since there are shared resources between the processes.