answers

1) Given the following task list:

{T1(4,1),T2(7,2),T3(10,2)} T(p,e) p : period e : execution time

Apply the Rate Monotonic scheduling algorithm until t=20 (Single core CPU)

- Fill the following table:

Time (t)	1	2	3	4	5	6	7	8	9	10
Executing task	T1	T2	t2	T3	T1	T3	T2	T1	T2	T3
Time (t)	11	12	13	14	15	16	17	18	19	20
Executing task	T3	T1	T2	T2	T1	----	-----	-----	-----	-----

- What does a preemptive scheduler mean? It means that the execution can be stopped at any time
- Is RM preemptive? No, since it stops when it should
- At which points of time (t) and which tasks are preempted considering the table? When they finish or the time is finished

2) Given tasks T1(5,4) and T2(2,1) and RM scheduler.

- Are these tasks schedulable with RM? No
- At which first point of time (t) do you see a problem? And what is the problem?

T2(1t); T1(1t); T2(1t); T1(1t); T2 (here the T2 can not compute the the full tasks and we have a problem.

3) Given the following periodic task list:

{T1(3,1),T2(5,2)}

Apply the EDF scheduling algorithm until t=20 (Single core CPU) and fill the table

Time (t)	1	2	3	4	5	6	7	8	9	10
Executing task	T1	T2	T2	T1	T2	T1	T2	T1	T2	T2
Time (t)	11	12	13	14	15	16	17	18	19	20
Executing task	T1	T2	T2	T1						