

## Simulation Project Task 1

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**Table 1: Task 1.1**

- Do the hand simulation until  $MC=50$
- The inter-arrival time of RT messages is constant = 10
- The inter-arrival time of nonR is constant = 5
- The service time of an RT message is constant = 2
- The service time of a nonRT message is constant = 4

<b><math>MC</math></b>	<b><math>RTCL</math></b>	<b><math>nonRTCL</math></b>	<b><math>n_{RT}</math></b>	<b><math>n_{nonRT}</math></b>	<b><math>SCL</math></b>	<b>Server status(s)</b>	<b>pre-empted remaining service time</b>
0	3	5	0	0	4	2	
3	13	5	0	1	5	1	1
5	13	10	0	2	5	1	1
5	13	10	0	1	6	2	
6	13	10	0	0	10	2	
10	13	15	0	1	10	2	
10	13	15	0	0	14	2	
13	23	15	0	1	15	1	1
15	23	20	0	2	15	1	1
15	23	20	0	1	16	2	
16	23	20	0	0	20	2	
20	23	25	0	1	20	2	
20	23	25	0	0	24	2	
23	33	25	0	1	25	1	1
25	33	30	0	2	25	1	1
25	33	30	0	1	26	2	
26	33	30	0	0	30	2	
30	33	35	0	1	30	2	
30	33	35	0	0	34	2	
33	43	35	0	1	35	1	1
35	43	40	0	2	35	1	1
35	43	40	0	1	36	2	
36	43	40	0	0	40	2	
40	43	45	0	1	40	2	
40	43	45	0	0	44	2	
43	53	45	0	1	45	1	1
45	53	50	0	2	45	1	1
45	53	50	0	1	46	2	
46	53	50	0	0	50	2	
50	53	55	0	1	50	2	
50	53	55	0	0	54	2	

**Table 2: Task 1.2**

- Do the hand simulation until  $MC=20$
- The inter-arrival time of RT messages is constant = 5
- The inter-arrival time of nonR is constant = 10
- The service time of an RT message is constant = 4
- The service time of a nonRT message is constant = 2

$MC$	$RTCL$	$nonRTCL$	$n_{RT}$	$n_{nonRT}$	$SCL$	Server status(s)	pre-empted remaining service time
0	3	5	0	0	4	2	
3	8	5	0	1	7	1	1
5	8	15	0	2	7	1	1
7	8	15	0	1	8	2	
8	13	15	0	1	12	1	
12	13	15	0	0	14	2	
13	18	15	0	1	17	1	1
15	18	25	0	2	17	1	1
17	18	25	0	1	18	2	
18	23	25	0	1	22	1	
22	23	25	0	0	24	2	