

# Exercise Qn 1 & 2

Ticks	Ready list	Current thread	printf message
	Empty	main	Scheduling interrupt handler the timer at time = 40 *** Timer interrupt scheduled at 40
10	child1	main	Interrupt handler timer, scheduled at 40
20	child1, child2	main	Interrupt handler timer, scheduled at 40
30	child1, child2, child3	main	Interrupt handler timer, scheduled at 40
40	main, child2, child3	child1	Interrupt handler timer, scheduled at 40 Invoking interrupt handler for the timer at time 40 Scheduling interrupt handler the timer at time = 80 Interrupt handler timer, scheduled at 80
50	main, child3	child2	Interrupt handler timer, scheduled at 80 Thread 1 Completed.
60	main	child3	Interrupt handler timer, scheduled at 80 Thread 2 Completed.
70	Empty	main	Interrupt handler timer, scheduled at 80 Thread 3 Completed.
80	Empty	main	Interrupt handler timer, scheduled at 80 Invoking interrupt handler for the timer at time 80 Scheduling interrupt handler the timer at time = 120 Interrupt handler timer, scheduled at 120
90	child4	main	Interrupt handler timer, scheduled at 120
100	child4, child5	main	Interrupt handler timer, scheduled at 120
110	child4, child5, child6	main	Interrupt handler timer, scheduled at 120
120	main, child5, child6	child4	Interrupt handler timer, scheduled at 120 Invoking interrupt handler for the timer at time 120 Scheduling interrupt handler the timer at time = 160 Interrupt handler timer, scheduled at 160
130	main, child6	child5	Interrupt handler timer, scheduled at 160 Thread 4 Completed.
140	main	child6	Interrupt handler timer, scheduled at 160 Thread 5 Completed.
150	Empty	main	Interrupt handler timer, scheduled at 160 Thread 6 Completed.
160	Empty	main	Interrupt handler timer, scheduled at 160 Invoking interrupt handler for the timer at time 160 Scheduling interrupt handler the timer at time = 200 Interrupt handler timer, scheduled at 200
170	child7	main	Interrupt handler timer, scheduled at 200
180	child7, child8	main	Interrupt handler timer, scheduled at 200
190	child7, child8,	main	Interrupt handler timer, scheduled at 200

	child9		
200	main, child8, child9	child7	Interrupt handler timer, scheduled at 200 Invoking interrupt handler for the timer at time 200 Scheduling interrupt handler the timer at time = 240 Interrupt handler timer, scheduled at 240
210	main, child9	child8	Interrupt handler timer, scheduled at 240 Thread 7 Completed.
220	main	child9	Interrupt handler timer, scheduled at 240 Thread 8 Completed.
230	Empty	main	Interrupt handler timer, scheduled at 240 Thread 9 Completed.
240	Empty	main	Interrupt handler timer, scheduled at 240 Invoking interrupt handler for the timer at time 240 Scheduling interrupt handler the timer at time = 280 Interrupt handler timer, scheduled at 280
250	Empty	Empty	Interrupt handler timer, scheduled at 280 Thread 0 Completed. Interrupt handler timer, scheduled at 280 End of pending interrupts Machine idle. No interrupts to do. No threads ready or runnable, and no pending interrupts. Assuming the program completed. Machine halting!

### Exercise Qn 3

Ticks	Ready list	Current thread	printf message
	Empty	main	Scheduling interrupt handler the timer at time = 40 *** Timer interrupt scheduled at 40
10	child1	main	Interrupt handler timer, scheduled at 40
20	child1, child2	main	Interrupt handler timer, scheduled at 40
30	child1, child2, child3	main	Interrupt handler timer, scheduled at 40
40	main, child2, child3	child1	Interrupt handler timer, scheduled at 40 Invoking interrupt handler for the timer at time 40 Scheduling interrupt handler the timer at time = 80 Interrupt handler timer, scheduled at 80
50	main, child3	child2	Interrupt handler timer, scheduled at 80 Thread 1 Completed. Scheduling interrupt handler the timer at time = 90
60	main	child3	Interrupt handler timer, scheduled at 90 Thread 2 Completed. Scheduling interrupt handler the timer at time = 100
70	Empty	main	Interrupt handler timer, scheduled at 100 Thread 3 Completed. Scheduling interrupt handler the timer at time = 110
80	child4	main	Interrupt handler timer, scheduled at 110

90	child4, child5	main	Interrupt handler timer, scheduled at 110
100	child4, child5, child6	main	Interrupt handler timer, scheduled at 110
110	main, child5, child6	child4	Interrupt handler timer, scheduled at 110 Invoking interrupt handler for the timer at time 110 Scheduling interrupt handler the timer at time = 150 Interrupt handler timer, scheduled at 150
120	main, child6	child5	Interrupt handler timer, scheduled at 150 Thread 4 Completed. Scheduling interrupt handler the timer at time = 160
130	main	child6	Interrupt handler timer, scheduled at 160 Thread 5 Completed. Scheduling interrupt handler the timer at time = 170
140	Empty	main	Interrupt handler timer, scheduled at 170 Thread 6 Completed. Scheduling interrupt handler the timer at time = 180
150	child7	main	Interrupt handler timer, scheduled at 180
160	child7, child8	main	Interrupt handler timer, scheduled at 180
170	child7, child8, child9	main	Interrupt handler timer, scheduled at 180
180	main, child8, child9	child7	Interrupt handler timer, scheduled at 180 Invoking interrupt handler for the timer at time 180 Scheduling interrupt handler the timer at time = 220 Interrupt handler timer, scheduled at 220
190	main, child9	child8	Interrupt handler timer, scheduled at 220 Thread 7 Completed. Scheduling interrupt handler the timer at time = 230
200	main	child9	Interrupt handler timer, scheduled at 230 Thread 8 Completed. Scheduling interrupt handler the timer at time = 240
210	Empty	main	Interrupt handler timer, scheduled at 240 Thread 9 Completed. Scheduling interrupt handler the timer at time = 250
220	Empty	Empty	Interrupt handler timer, scheduled at 250 Thread 0 Completed. Scheduling interrupt handler the timer at time = 260 End of pending interrupts Machine idle. No interrupts to do. No threads ready or runnable, and no pending interrupts. Assuming the program completed. Machine halting!