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QUESTIONS FOR OS:

8.. Ten students (s1,s2,s3,s4,s5,s6,s7,s8,s9,s10) are going to attend an event. There are lots of gift shops, they all are going to the gift shops and randomly picking the gifts. After picking the gifts they are randomly arriving in the billing counter. The accountant gives the preference to that student who has maximum number of gifts. Create a C program to define order of billed students?

19. The following processes are being scheduled using a preemptive, round robin scheduling algorithm. Each process is assigned a numerical priority, with a higher number indicating a higher relative priority. In addition to the processes listed below, the system also has an ***idle task*** (which consumes no CPU resources and is identified as *P\_idle* ). This task has priority 0 and is scheduled whenever the system has no other available processes to run. The length of a time quantum is 10 units. If a process is preempted by a higher-priority process, the preempted process is placed at the end of the queue.

Thread Priority Burst Arrival

*P*1 40 20 0

*P*2 30 25 25

*P*3 30 25 30

*P*4 35 15 60

*P*5 5 10 100

*P*6 10 10 105

Write a C code to

a. Show the scheduling order of the processes using a Gantt chart.

b. What is the turnaround time for each process?

c. What is the waiting time for each process?

d. What is the CPU utilization rate?