

1. Discuss how the following pairs of scheduling criteria conflict in certain settings.
 - a) Average turnaround time and maximum waiting time
 - b) I/O device utilization and CPU utilization
2.
 - a) How does SRT differ from SPN?
 - b) What feature is common between SPN, SRT and HRRN?
3. Explain the difference in degree to which the following scheduling algorithms discriminate in favor of short jobs.
 - (i) FCFS
 - (ii) RR
 - (iii) feedback
4. Consider the following set of processes:

Process	Arrival Time	Service Time
A	0	3
B	1	5
C	3	2
D	9	5
E	12	2

- a) Show the schedule using FCFS, RR with quantum of 1, SPN, SRT and HRRN.
- b) Find the normalized turnaround time of each process for the scheduling algorithms in a).

Self-test

1. The _____ scheduler executes most frequently and makes the fine-grained decision of which process to execute next.
 - A) long-term
 - B) I/O
 - C) medium-term
 - D) short-term

2. Response time in an interactive system is an example of:
 - A) user-oriented criteria for long-term scheduling policies
 - B) system-oriented criteria for short-term scheduling policies
 - C) system-oriented criteria for long-term scheduling policies
 - D) user-oriented criteria for short-term scheduling policies

3. Giving each process a slice of time before being preempted is a technique known as _____.
 - A) FCFS (first-come-first-serve)
 - B) RR (round-robin)
 - C) SPN (shortest-process-next)
 - D) priority

4. The need to know or estimate required processing time for each process and lack of preemption are difficulties with the _____ scheduling algorithm
 - A) FCFS (first-come-first-serve)
 - B) RR (round-robin)
 - C) SPN (shortest-process-next)
 - D) priority

5. To determine the quantum size for round-robin, we should take the following into consideration. _____.
 - A) Quantum should be smaller than most of the CPU bursts.
 - B) Quantum should be large compared to the context switching time.
 - C) Quantum should be small in order to preempt the running process frequently.
 - D) Quantum should be larger than the largest CPU burst.

6. _____ scheduling algorithms have a risk of the possibility of starvation.
 - (i) FCFS (first-come-first-serve)
 - (ii) SPN (shortest-process-next)
 - (iii) RR (round-robin)
 - (iv) priority
 - A) (ii) only
 - B) (ii) and (iv)
 - C) (iii) only
 - D) (i) and (iii)