EXERCISES

Multiple Choice Questions:

4.1 Scheduling is
  (a) allowing job to use the processor
  (b) unrelated to performance considerations
  (c) quite simple to implement, even on large main frames
  (d) the same regardless of the purpose of the system.

4.2 The main function of the dispatcher is
  (a) swapping a process to the disk
  (b) assigns ready process to the CPU
  (c) suspending some of the processes when the CPU load is high
  (d) bring the processes from the disk to the main memory.

4.3 Processor-bound tasks
  (a) use the processor move often   (b) use move processor time
  (c) use less processor time   (d) always take longer to execute.

4.4 The dispatcher
  (a) schedules the task into the processor   (b) is always simple and small
  (c) puts tasks in I/O wait   (d) never changes task priorities.

4.5 The most complex dispatcher
  (a) should always be used   (b) should never be used
  (c) is never used on large computers   (d) should be used only on large computers.

4.6 Complex scheduling algorithms
  (a) use more resources than they gain   (b) recover more resources then they use
  (c) always use many resources   (d) are most appropriate for very large computers.

4.7 The dispatcher is the module that gives control of the CPU to the process selected by the short-term scheduler. This function involves :
  (a) context switching   (b) switching to user mode
  (c) jumping to the proper location in the user
  (d) all of these.

4.8 The time taken by the CPU to stop one process and start another is known as :
  (a) response time   (b) turn around time
  (c) waiting time   (d) dispatch latency

4.9 The FCFS algorithm executes first the job
  (a) last entered in the Ready Queue   (b) first entered in the Ready Queue
  (c) with the least processor needs   (d) that has been in the queue the longest.

4.10 The SJF algorithm executes first the job
  (a) last entered in the Ready Queue   (b) first entered in the Ready Queue
  (c) with the least processor needs   (d) that has been in the queue the longest.

4.11 Priorities
  (a) are used to schedule processes
  (b) increase as a process remains in the processor
  (c) are attached to each page in the system
  (d) are assigned by the user.

4.12 SJF and priority scheduling are
    (*a*) preemptive   (*b*) non-preemptive
    (*c*) both (a) and (b)   (*d*) none of these.

4.13 FCFS and RR scheduling are respectively :
    (*a*) preemtive, non-preemptive   (*b*) non-preemptive, preemptive
    (*c*) deadline, fair-share   (*d*) fair-share, deadline.

4.14 Turn around time is defined as
    (*a*) delay between job submission and job completion
    (*b*) waiting time
    (*c*) both (a) and (b)
    (*d*) none of these.

4.15 A process scheduler is a processor management unit, which
    (*a*) gives all submitted jobs to the job scheduler
    (*b*) selects a job to run
    (*c*) co-ordinates the process synchronization
    (*d*) selects a process to run.

4.16 The portion of the process scheuler in an OS that dispatches processes is concerned with
    (*a*) activating I/O bound   (*b*) activating CPU bound
    (*c*) assigning ready processes to CPU   (*d*) all of these.

4.17 Under the multiprogramming, turn-around time for short jobs is usually _____ and that for long jobs is slightly _____.
    (*a*) lengthened, shortened   (*b*) shortened, lengthened
    (*c*) shortened, shortened   (*d*) shortened, unchanged.

4.18 The advantages of multiprogramming is
    (*a*) increased throughput   (*b*) shorter response time
    (*c*) ability to assign priority to jobs   (*d*) all of these.

4.19 With RR scheduling in a time shared system using :
    (*a*) very large time quantum degenerates into FCFS algorithm.
    (*b*) extremely small time quantum improves performance.
    (*c*) very small time quantum degenerates LIFO algorithm
    (*d*) medium size time quantum leads to SRTF algorithm.

4.20 At a single CPU, 40% of all users have no wait to use the terminal and the average wait time for all users in 50 minutes. What is the average wait time for those who wait ? (Round off the closest answer).
    (*a*) 60   (*b*) 70
    (*c*) 80   (*d*) 100.

TEST QUESTIONS

4.1 What are CPU schedulers ? Describe various types of schedulers.

4.2 What are the objectives of CPU scheduling ?

4.3 What are scheduling criteria ?

4.4 Explain preemtive and non-preemptive scheduling.

4.5 Describe FCFS scheduling algorithm with a suitable example.