**MCQ – Process Management**

**Multiple-Choice Questions on Process Management**

**1. What is a process in the context of an operating system?**

A. A program in execution  
B. A type of hardware  
C. A storage device  
D. A file system

**Answer:** A. A program in execution

**2. What are the main states of a process in a typical process lifecycle?**

A. New, Ready, Running, Waiting, Terminated  
B. New, Ready, Running, Blocked, Suspended  
C. Initial, Ready, Running, Waiting, End  
D. Created, Ready, Running, Suspended, End

**Answer:** A. New, Ready, Running, Waiting, Terminated

**3. Which process state represents a process that is waiting for some event to occur?**

A. Ready  
B. Running  
C. Waiting  
D. Terminated

**Answer:** C. Waiting

**4. What is a process control block (PCB)?**

A. A type of data structure that contains information about a process  
B. A control mechanism for memory management  
C. A hardware component  
D. A file system directory

**Answer:** A. A type of data structure that contains information about a process

**5. Which scheduling algorithm assigns the CPU to the process that has been waiting the longest?**

A. Shortest Job First (SJF)  
B. Round Robin (RR)  
C. First-Come, First-Served (FCFS)  
D. Priority Scheduling

**Answer:** C. First-Come, First-Served (FCFS)

**6. What does context switching involve?**

A. Moving a process from the ready state to the running state  
B. Saving the state of a currently running process and loading the state of the next process  
C. Switching the CPU between multiple cores  
D. Changing the priority of a process

**Answer:** B. Saving the state of a currently running process and loading the state of the next process

**7. Which of the following is NOT typically included in a process control block (PCB)?**

A. Process ID  
B. Process State  
C. Memory Limits  
D. File System Directory

**Answer:** D. File System Directory

**8. What is the primary purpose of process scheduling in an operating system?**

A. To allocate disk space to processes  
B. To manage network connections  
C. To determine which process gets to use the CPU and when  
D. To handle input and output operations

**Answer:** C. To determine which process gets to use the CPU and when

**9. In which process state is a process currently executing instructions on the CPU?**

A. Ready  
B. Waiting  
C. Running  
D. Terminated

**Answer:** C. Running

**10. What is the main function of a process scheduler in an operating system?**

A. To manage the input and output devices  
B. To control the amount of memory used by each process  
C. To allocate CPU time to various processes  
D. To handle process creation and termination

**Answer:** C. To allocate CPU time to various processes