ALGORITHM FOR ROUND ROBIN

The steps to execute the given process using *ROUND ROBIN* is listed below

* Step1: the list of processes that need to be executed is taken
* Step2: Define a time quantum (also known as time slice or time slot), denoted by 𝑞. This is the maximum amount of CPU time allocated to each process during a single time slot.
* Step3: As processes arrive, they are added to a queue known as the ready queue. This queue contains all processes that are ready to be executed.
* Step4: Begin with the first process in the ready queue.
* Step5: Execute the process for the duration of one time quantum 𝑞 or until it voluntarily relinquishes the CPU
* Step6: If the process finishes execution within the time quantum, it's marked as completed and removed from the system.
* Step7: If the process does not complete within the time quantum, it is preempted (temporarily paused), and it's placed back into the ready queue to await its next turn.
* Step8: After a process completes its execution or is preempted, select the next process in the ready queue.
* Step9: If the ready queue is empty, the CPU remains idle until a new process arrives.
* Step10: Repeat steps 3 and 4 until all processes have completed their execution.