CSCI423/501 Writing Assignment 3

Problem 1: Consider the following set of processes, with the length of the CPU burst time given in milliseconds:

Process	Burst Time	Priority
P1	2	2
P2	1	1
P3	8	4
P4	4	2
P5	5	3

The processes are assumed to have arrived in the order P1, P2, P3, P4, P5, all at time 0.

a. Draw four Gantt charts that illustrate the execution of these processes using the following scheduling algorithms: FCFS, SJF, nonpreemptive priority (a **larger** priority number implies a **higher** priority), and RR (quantum = 2).

b. What is the turnaround time of EACH process for each of the scheduling algorithms in part a?

c. What is the waiting time of EACH process for each of these scheduling algorithms?

d. Which of the algorithms results in the minimum average waiting time (over all processes)?

Problem 2: Explain how starvation can occur in priority scheduling and how aging can be used to prevent it.