7.15
Runtime Overheads:

> There is an increase in the overhead since there is a need to keep track of system resource allocation.

System Throughput

> Better allocates resource use to processes allowing the concurrent running of processes.

7.16
a. Safe
b. introduce deadlock
c. introduce deadlock
d. safe

7.18
Holds since the maximum amount of resources that a process can utilize is m. And the total resources utilized are less than the number of processes plus and resources. If the first holds then the second will essentially partition the resources so that no process can request a greedy amount.

7.22
a. Unsafe only p1,p2, and p3 are able to finish
b. Safe: p1,p2,p3,p0,p4

7.24
That no further request will be made from a process after the initial request will be the only one.