Problem 1

Devise two algorithms that, without consensus, implement weaker specifications of NBAC by replacing the termination property with the following ones:

1. Weak termination: Let $p$ be a distinguished process, known to all other processes. If $p$ does not crash then all correct processes eventually decide. Your algorithm may use a perfect failure detector.

2. Very weak termination: If no process crashes, then all processes decide. Is a failure detector needed to implement this algorithm?

Problem 2

Can we implement TRB with the eventually perfect failure detector $\diamond P$, if we assume that at least one process can crash?