Assignment-02

The consensus problem in distributed systems is the problem of getting a set of nodes to agree on something – it might be a value, a course of action or a decision. This problem has been at the core of distributed systems research for over last few decades. A Simple solution, which can work under some constraints, is called two-phase commit, or 2PC.

Think about how you would solve a real-world consensus problem – perhaps trying to arrange a graduate party! You'd call all your friends and suggest a date and a time. If that date/time is good for everybody you have to ring again and confirm, but if someone can't make it you need to call everybody again and tell all your friends that the party is off. More specifically, we can identify two steps in the process:
First, the first proposal phase involves proposing a value to every participant in the system and gathering responses. In the next phase, if everyone agrees, there is need to contact every participant again to let him or her know. Otherwise, contact every participant to abort the consensus.

For this question, you need to ignore the part to contact every participant again, thread share variables and this can be implicit.