

Unit 23. Pre-Class Quiz Questions

1. Which of the following might initiate a period of transient CSTR operation (select all that apply)
 - a. The inlet flow rate is changed
 - b. The flow leaving the reactor is directed to a new storage tank
 - c. The flow of coolant through the reactor jacket is interrupted
 - d. The spinning rate of the agitator is increases
 - e. The inlet temperature changes
2. True or false? After passing through a period of transient operation, a CSTR always attains a new steady state.
3. True or false? The transient CSTR design equations are obtained from the steady state design equations by setting all of the derivatives with respect to time equal to zero.
4. Which of the following factors should be considered when specifying a CSTR start-up procedure (choose all that apply)
 - a. safety
 - b. cost
 - c. whether the start-up will occur during the day or at night
 - d. simplicity
 - e. regulatory compliance
5. True or false? During start-up a CSTR is operating in a transient mode and should be modeled using the transient CSTR design equations.