

## Unit 18. Pre-Class Quiz Questions

1. Which of the following are advantages of batch reactors? (Select all that apply)
  - a. low labor requirements
  - b. ease of changing reaction being run
  - c. high throughput
  - d. ability to process small quantities of reactants
  - e. ability to change processing conditions during reaction
2. The turnaround time is
  - a. the time it takes for a tanker truck to turn around after the contents of a batch reactor have been loaded into it.
  - b. the time required between batch reactor runs for draining, cleaning, preparing and charging the reactor for the next run.
  - c. the time required for pre-heating the reactants to the desired reaction temperature.
  - d. the time required to cool the reactor after the reaction is complete.
  - e. the time needed to remove a batch reactor from the plant and install a new one.
3. True or false? The selectivity for the intermediate product in a series reaction network can be altered by changing the length of time that reaction is allowed to run.
4. True or false? In order to run a batch reactor isothermally with an endothermic reaction, it is necessary to add heat at a constant rate over the course of the reaction.
5. Temporal variations are related to
  - a. quantities that vary temporarily
  - b. quantities that vary by location within the reactor
  - c. quantities that vary over time within the reactor
  - d. quantities that vary with ambient temperature
  - e. quantities that make reactor operators angry