## Unit 27. Pre-Class Quiz Questions

- 1. The transient PFR design equations are
  - a. algebraic equations
  - b. ordinary differential equations
  - c. partial differential equations
  - d. eigenvalue equations
  - e. integer equations
- 2. True or false? If a step change occurs in an operating parameter of a PFR, the ensuing transient period will only last for an amount of time equal to the space time.
- 3. True or false? Many transient PFR analyses can be completed using only the steady state design equations.
- 4. True or false? Start-up and shut-down of a PFR are not transient operations.
- 5. If a step change is made in the inlet concentration of a reactant, the transient response of a PFR will take the form of
  - a. a sine wave
  - b. a cosine wave
  - c. a moving front
  - d. a stationary front
  - e. exponential decay