## A First Course on Kinetics and Reaction Engineering

## **Unit 29 Additional Quiz Questions**

- 1. When the outlet from one reactor flows to the inlet of a second reactor, the reactors are said to be connected
  - a. in series
  - b. in parallel
  - c. in series-parallel
  - d. adiabatically
  - e. in space time
- 2. True or false? For an isothermal autocatalytic reaction, a small CSTR followed in series by a PFR would be preferred over a small PFR followed in series by a CSTR.
- 3. True or false? A cascade of CSTRs improves performance compared to a single CSTR by reducing the reactant concentration to its final level in multiple steps instead of one single step.
- 4. True or false? When CSTRs are connected to form a cascade, an extra term must be added to the mole balance design equations for the individual CSTRs to account for reactor connectivity.
- 5. True or false? When CSTRs are connected to form a cascade, an extra term must be added to the energy balance design equations for the individual CSTRs to account for reactor connectivity.