Unit 35. Pre-Class Quiz Questions

1. True or false? A zoned reactor model uses a network of interconnected ideal reactors, called zones, to represent the performance of a single, non-ideal reactor.
2. Which of the following zone types were discussed in the information reading (select all that apply)?
   a. a batch zone
   b. a CSTR zone
   c. a well-mixed stagnant batch zone
   d. a PFR zone
   e. a well-mixed stagnant CSTR zone
3. If a number of equally-sized, well-mixed CSTR zones connected in series are used to model a non-ideal tubular reactor, what quantity(quantities) can be used to adjust the model to best match the non-ideal reactor's performance (select all that apply)?
   a. the split of the feed between the zones
   b. the dispersion coefficient of the zones
   c. the number of zones
   d. none of the above (a-c)
   e. all of the above (a-c)
4. What distinguishes a well-mixed stagnant CSTR zone from a regular CSTR zone?
   a. the size
   b. the inlet flow rate
   c. the outlet flow rate
   d. the inlet and outlet are connected to the same point in zone network
   e. all of the above
5. True or false? The age function for the reactor being modeled can be used to select values for adjustable parameters that appear in zoned reactor models.