

## Chemical Reaction Engineering MCQ Questions and Answers Pdf

### Question: 1

The role of a catalyst in a chemical reaction is to change the

- (A) heat of reaction
- (B) final products
- (C) activation energy
- (D) equilibrium constant

Ans: C

activation energy

### Question: 2

Batch reactors are industrially used

- (A) for conducting fermentation
- (B) for production of fine chemicals
- (C) for production of heavy chemicals
- (D) when relatively small amount of materials are to be treated

Ans: A

for conducting fermentation

### Question: 3

According to the 'law of mass action' the rate of reaction is directly proportional to the

- (A) volume of the reaction vessel
- (B) molar concentration of the reactants

(C) nature of the reactants

(D) equilibrium constant

Ans: B

molar concentration of the reactants

**Question: 4**

Rate of a chemical reaction is not influenced by the

(A) number of molecules of reactants taking part in a reaction

(B) catalyst

(C) temperature

(D) reactants concentration

Ans: A

number of molecules of reactants taking part in a reaction

**Question: 5**

In a semi-batch reactor

(A) residence time is constant

(B) maximum conversion can be controlled

(C) velocity of reaction can be controlled

(D) both the reactants flow counter currently

Ans: C

velocity of reaction can be controlled

**Question: 6**

Thermodynamics equilibrium constant in a system is affected by

- (A) temperature
- (B) pressure
- (C) inerts
- (D) all a, b and c

Ans: A

temperature

**Question: 7**

A back mix reactor is

- (A) same as ideal stirred tank reactor
- (B) same as plug flow reactor (PFR)
- (C) suitable for gas phase reactions
- (D) ideal at very low conversion

Ans: A

same as ideal stirred tank reactor

**Question: 8**

The reactions with low activation energy are

- (A) slow
- (B) fast
- (C) always spontaneous
- (D) non spontaneous

Ans; B

fast

**Question: 9**

Catalyst carriers

(A) provide large surface area with a small amount of active material

(B) inhibit catalyst poisoning

(C) have very high selectivity

(D) increase the activity of a catalyst

Ans: A

provide large surface area with a small amount of active material

**Question: 10**

Ionic reaction occur in

(A) any state

(B) solid state only

(C) liquid state only

(D) solutions

Ans: D

Solutions

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