

- C) structuring agents;
- D) fixers;
- E) initiators.

57. Heat-resistant porous substances, which in one way or another are applied to the catalyst, are called:

- A) activators;
- B) promoters;
- C) carriers or triggers;
- D) sorbents;
- E) substrates.

58. Chemical-technological process consists of the following elementary stages:

- A) loading of reacting components into the reactor;
- B) preparation and loading of raw materials, chemical interaction, unloading and cleaning of the target product;
- C) unloading of products from the reactor, storage;
- D) reagent supply to the reaction zone, chemical interaction, removal of products from the reaction zone;
- E) the chemical interaction itself.

59. A heterogeneous system corresponds to the equation:

- A) $2\text{HBr} = \text{H}_2 + \text{Br}_2$;
- B) $4\text{H}_2\text{O} + 3\text{Fe} = 4\text{H}_2 + \text{Fe}_3\text{O}_4$;
- C) $\text{N}_2\text{O}_4 = 2\text{NO}_2$;
- D) $2\text{CO} + \text{O}_2 = 2\text{CO}_2$;
- E) $\text{CO} + \text{H}_2\text{O}(\text{vapor}) = \text{H}_2 + \text{CO}_2$.

60. A heterogeneous system corresponds to the equation:

- A) $2\text{NO} + \text{O}_2 = 2\text{NO}_2$;
- B) $3\text{H}_2 + \text{N}_2 = 2\text{NH}_3$;
- C) $2\text{Al} + 3\text{Cl}_2 = 2\text{AlCl}_3$;
- D) $2\text{SO}_2 + \text{O}_2 = 2\text{SO}_3$;
- E) $\text{CO} + \text{H}_2\text{O}(\text{vapor}) = \text{H}_2 + \text{CO}_2$.

61. How many times will the speed of a chemical reaction increase with an increase in temperature by 30°C, if the temperature coefficient of the reaction rate is 3?

- A) 3;
- B) 9;
- C) 10;
- D) 27;
- E) 30.

62. How many degrees need to raise the temperature to the reaction rate increased by 16 times, if the temperature coefficient of the reaction rate is 2?

- A) 32;
- B) 8;
- C) 40;
- D) 4;
- E) 25.