11. In the kinetic equation: $v=k\cdot[A]^a\cdot[B]^b$ expressing the dependence of the reaction rate (v) on the concentration of reacting substances in the reaction: $aA + bB \rightarrow cC + dD$, - the sum of the indicators of the degrees of concentrations of the reacting substances (a+b) determines:

A) reaction molecular weight;
B) reaction rate;
C) reaction order;
D) molarity;
E) direction.

12. Determine the reaction order: *aA (gas) + bB (gas) + cC (gas) → dD (liquid) + eE (solid phase)*

A) a + b + c;
B) (a + b + c) / 2;
C) 3/2 (a + b + c);
D) a + b + c / d + e;
E) (d + e) / 2.

13. Determine the reaction order: *aA (gas) + bB (gas) + cC (solid phase) → dD (liquid phase) + eE (solid phase)*

A) a + b + c;
B) (a + b) / c;
C) (d + e) / 2;
D) (a + b + c) / (d + e);
E) (a + b + c) / 2.

14. The amount of a substance that turns into a unit of time in a unit of reaction volume characterizes:

A) rate of conversion;
B) reaction rate;
C) apparent speed constant;
D) equilibrium constant;
E) equilibrium concentration.

15. Complete the definition of the Le Chatelier principle: "if an equilibrium system is exerted any influence from outside, then a process takes place in the system ... and brings the system to a new equilibrium":

A) enhancing this effect;
B) attenuating this effect;
C) similar to this effect;
D) eliminating this effect;
E) opposing it.

16. In the system: *$4NH_3$ (gas) + O_2 (gas) ↔ $2N_2$ (gas) + $6H_2O$ (gas)*, where *$\Delta H<0$*, the pressure increase will affect the equilibrium as follows:

A) the balance does not change;
B) the balance will shift to the right;
C) the balance will shift to the left;
D) the reaction becomes non-equilibrium;
E) the reaction becomes equilibrium.

17. In the system*: $4NH_3$ (gas) + O_2 (gas) ↔ $2N_2$ (gas) + $6H_20$ (gas)*, where *$\Delta H < 0$*, the temperature increase will affect the equilibrium in the following way: