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

## 18. In the system: $2NO(gas) + O_2(gas) \leftrightarrow 2NO_2(gas)$ , where $\Delta H < 0$ , the increase in pressure will affect the equilibrium in the following way:

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

# 19. In the system: $2NO(gas) + O_2(gas) \leftrightarrow 2NO_2(gas)$ , where $\Delta H > 0$ , the temperature increase will affect the equilibrium as follows:

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

### 20. In the system: $H_2O$ (liquid) $\leftrightarrow$ $H_2O$ (gas), where $\Delta H > 0$ , the increase in pressure will affect the equilibrium as follows:

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

# 21. In the system: $H_2O$ (liquid) $\leftrightarrow$ $H_2O$ (gas), where $\Delta H > 0$ , - an increase in temperature will affect the equilibrium as follows:

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

### 22. In an exothermic reaction with increasing temperature, the equilibrium is shifted to the side:

- A) formation of the starting materials;
- B) formation of reaction products;
- C) direct reaction;
- D) formation of intermediate products;
- E) the reverse reaction.

#### 23. In the endothermic reaction with increasing temperature equilibrium is shifted to the side:

- A) formation of the starting materials;
- B) formation of reaction products:
- C) direct reaction;
- D) the formation of by-products;