

D) 2, 5, 6;

E) 1, 5, 7.

**82. On the balance of which of the above reactions pressure does not affect:**

A)  $2\text{SO}_2 + \text{O}_2 = 2\text{SO}_3$ ;

B)  $2\text{H}_2 + \text{O}_2 = 2\text{H}_2\text{O}$ ;

C)  $\text{N}_2 + 3\text{H}_2 = 2\text{NH}_3$ ;

D)  $\text{N}_2 + \text{O}_2 = 2\text{NO}$ ;

E)  $2\text{CO} + \text{O}_2 = 2\text{CO}_2$ .

**83. The balance of which of the processes will shift to the left with increasing pressure:**

A)  $\text{H}_2 + \text{I}_2 = 2\text{HI}$ ;

B)  $\text{CO} + \text{H}_2\text{O}_{(g)} = \text{CO}_2 + \text{H}_2$ ;

C)  $2\text{SO}_2 + \text{O}_2 = 2\text{SO}_3$ ;

D)  $\text{Cl}_2 + \text{CO} = \text{COCl}_2$ ;

E)  $\text{NH}_4\text{NO}_2 = 2\text{H}_2\text{O} + \text{N}_2$ .

**84. The balance of which of the processes will shift to the right with increasing temperature:**

A)  $\text{CO}_2 + 2\text{Mg} = 2\text{Mg} + \text{C} + \text{Q}$ ;

B)  $2\text{SO}_2 + \text{O}_2 = 2\text{SO}_3 + \text{Q}$ ;

C)  $2\text{CO} + \text{O}_2 = 2\text{CO}_2 + \text{Q}$ ;

D)  $\text{MgCO}_3 = \text{Mg} + \text{CO}_2 - \text{Q}$ ;

E)  $\text{N}_2 + 3\text{H}_2 = 2\text{NH}_3 + \text{Q}$ .

**85. For the reaction  $\text{H}_2 + \text{I}_2 = 2\text{HI} + \text{Q}$  define a balance shift condition towards formation of a product:**

A) increase in pressure;

C) heating;

C) pressure reduction;

D) cooling;

E) radiation.

**86. With increasing pressure equilibrium in the reaction  $2\text{NO} + \text{O}_2 = 2\text{NO}_2$  will shift:**

A) towards the formation of the product;

B) towards the formation of precursors;

C) will not change;

D) mainly to the right;

E) mainly to the left.

**87. The speed of a heterogeneous process:**

$$W_{het} = \pm \frac{1}{s} \frac{dn_A}{d\tau} ;$$

A)

$$W_{het} = \pm \frac{1}{v} \frac{dn_A}{d\tau} ;$$

B)

$$C) W_{het} = R_0 \cdot l^{-\frac{E}{RT}}$$

D)  $W_{het} = Rm \cdot \Delta C$ ;