

**86. Calculate the amount of sulfur pyrite (kg) required to produce 100m<sup>3</sup> of roasting gas with a SO<sub>2</sub> concentration of 15% by reaction:  $4\text{FeS}_2 + 11\text{O}_2 = 2\text{Fe}_2\text{O}_3 + 8\text{SO}_2$ :**

- A) 75.1;
- B) 65.5;
- C) 40.1;
- D) 120.3;
- E) 145.5.

**87. Calculate the amount of pyrite (kg) containing 45% S needed to produce 1 ton of H<sub>2</sub>SO<sub>4</sub>:**

- A) 150.3;
- B) 126.5;
- C) 246.6;
- D) 518.3;
- E) 725.6.

**88. The concentration of sulfuric acid obtained by double adsorption and double contacting from pyrite firing gas is equal to:**

- A) 96%;
- B) 75%;
- C) 98.3 %;
- D) 73%;
- E) 92.5%.

**89. The process of firing sulfur pyrite is carried out in accordance with the following technological scheme:**

- A) complex cyclical;
- B) cyclical;
- C) open circuit;
- D) bypass;
- E) parallel.

**90. Sulfuric acid production is carried out in accordance with the following scheme:**

- A) parallel;
- B) cyclical;
- C) open;
- D) bypass;
- E) combined.

**91. To calculate the expenditure coefficient of sulfur pyrite by the reaction:  $4\text{FeS}_2 + 11\text{O}_2 = 2\text{Fe}_2\text{O}_3 + 8\text{SO}_2$ , - if it contains 35% sulfur:**

- A) 1.5340;
- B) 1.6672;
- C) 2.5158;
- D) 1.4286;
- E) 1.2324.

**92. The optimal SO<sub>2</sub> content in the firing gas supplied to contact oxidation is:**

- A) 3%;
- B) 15%;
- C) 20%;
- D) 12%;