

- D) performance (productivity);
- E) power.

**29. The product value and consumer properties of the product are determined by:**

- A) product quality;
- B) the appearance of the product;
- C) the content of impurities in the product;
- D) water content;
- E) dispersion.

**30. The average time of trouble-free operation, or the number of emergency stops of equipment or production for a certain period of time characterizes:**

- A) quality of equipment;
- B) operating conditions;
- C) the correct service;
- D) reliability;
- E) effectiveness.

**31. In a reactor with a volume of 2 m<sup>3</sup> in 30 seconds, 80 kg of the starting material was converted. Determine the rate of transformation of the original substance:**

- A) 2.67;
- B) 2.27;
- C) 2.01;
- D) 2.10;
- E) 3.00.

**32. In a 3 m<sup>3</sup> reactor in 60 seconds, 25 kg of the starting material was converted. Determine the rate of transformation of the original substance:**

- A) 0.35;
- B) 0.39;
- C) 0.40;
- D) 0.46;
- E) 0.42.

**33. The concentration of the initial substance at the entrance to the reactor is 10 mol/L, and at the exit of the reactor 0.07 mol/L. Determine the degree of conversion of the original substance:**

- A) 0.96;
- B) 0.79;
- C) 0.95;
- D) 0.84;
- E) 0.99.

**34. The concentration of the initial substance at the reactor inlet is 13.8 mol/L, and at the reactor exit 0.6 mol/L. Determine the degree of conversion of the original substance:**

- A) 0.96;
- B) 0.93;
- C) 0.99;
- D) 0.79;
- E) 0.58.