

№1

1) Бер:  
 $w(\text{NH}_3) = 20\%$   $w = 20\%$   
 $m_{\text{ep-gi}} = 80 \text{ z}$   
 $m_{\text{ik}}: m(\text{NH}_3) = ?$   
 $m(\text{H}_2\text{O}) = ?$

Шешуі:  
 $m_{\text{ep-3}} = \frac{w \cdot m_{\text{ep-gi}}}{100\%}$   
 $m_{\text{ep-kiu}} = m_{\text{ep-gi}} - m_{\text{ep-3}}$

Есептеуі:  
 $m_{\text{ep-3}} = \frac{20 \cdot 80}{100} = 16 \text{ z}$   
 $m(\text{H}_2\text{O}) = 80 - 16 = 64 \text{ z}$

2)  ~~$m(\text{NH}_3) = 16 \text{ z}$~~   
 ~~$m(\text{H}_2\text{O}) = 64 \text{ z}$~~

\*:  $m(\text{NH}_3) = 16 \text{ z}$   
 $m(\text{H}_2\text{O}) = 64 \text{ z}$

$$\bar{e}(\text{N}) + \bar{e}(\text{H}_3) + \bar{e}(\text{H}_2) + \bar{e}(\text{O}) = 7 + 3 + 2 + 8 = 20$$

№2

1) Бер:  
 $m(\text{C}_2\text{H}_4\text{O}_2) = 3 \text{ z}$   
 $m_{\text{ik}}: M_r$   
 $\rho = ?$   
 $c = ?$

Шешуі:  
 $M_r(\text{C}_2\text{H}_4\text{O}_2) = 12 \cdot 2 + 4 + 32 = 60 \text{ z/моль}$   
 $\rho = \frac{3}{60} = 0,05 \text{ моль}$   
 $c = \frac{\rho}{V} = \frac{0,05}{0,02} = 2,5$

2)

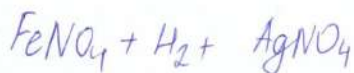
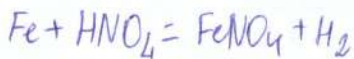
$$Q_{\text{mol}} = \frac{m(\text{C}_2\text{H}_4\text{O}_2)}{n(\text{C}_2\text{H}_4\text{O}_2)} = \frac{3}{0,05} = 60 \text{ моль}$$

\*:  $Q_{\text{mol}} = 60 \text{ моль}$

№4

1) A = Cu  
 B = Fe

Бер:  
 $V(\text{Fe}) = 20 \text{ мл} = 0,02 \text{ л}$   
 $V(\text{HNO}_3) = 2 \text{ мл} = 0,002 \text{ л}$



3)  $\rho = 1 \text{ z/л}$

$$V_{\text{m}} \cdot \rho$$

$$1 \cdot 22,4 = 22,4$$

4)



$$w(\text{S}) = 40,506\%$$

$$w(\text{O}) = 30,38\%$$

Blank area for filling in solutions.