



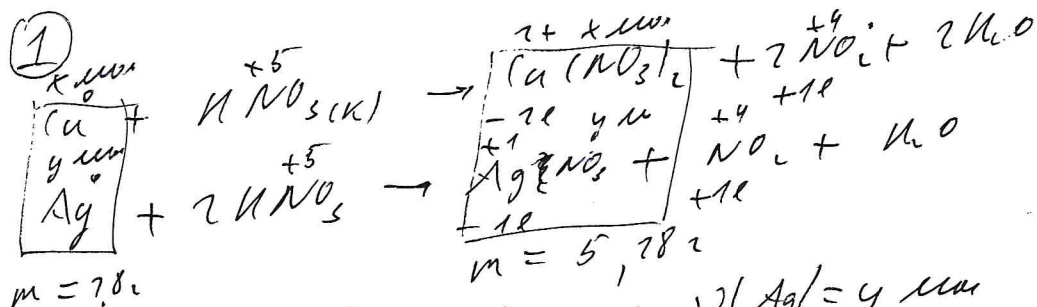
Класс 11

Вариант

Дата Олимпиады 24.02

Площадка написания КРАСНОЯРСК

Задача	1	2	3	4	5	6	Σ		Подпись
							Цифрой	Прописью	
Оценка	5	5	5	0	5	2	22	двадцать два	<i>[Signature]</i>



Пусть $V(\text{Ca}) = x \text{ мм}$; $V(\text{Ag}) = y \text{ мм}$

$$\frac{V(\text{Ca})}{V(\text{Ca(NO}_3)_2)} = \frac{1}{1}; V(\text{Ca(NO}_3)_2) = x \text{ мм}$$

$$\frac{V(\text{Ag})}{V(\text{AgNO}_3)} = \frac{1}{1}; V(\text{AgNO}_3) = y \text{ мм}$$

$$m(\text{Ca}) = M_{\text{Ca}} \cdot V = 64 \cdot x = 64x$$

$$m(\text{Ag}) = 108 \cdot y = 108y$$

$$64x + 108y = 7,8$$

$$m(\text{Ca(NO}_3)_2) = 188 \cdot x = 188x$$

$$m(\text{AgNO}_3) = 170 \cdot y = 170y$$

$$\begin{cases} 188x + 170y = 5,78 \\ 64x + 108y = 7,8 \end{cases}$$

$$\begin{cases} 188x + 170y = 5,78 \\ 64x + 108y = 7,8 \end{cases}$$

$$188x = 5,78 - 170y$$

$$x = 0,018085 - 0,90426y$$

$$64(0,018085 - 0,90426y) + 108y = 7,8$$

$$1,177 - 57,87y + 108y = 7,8$$

$$50,13y = 1,003$$

$$y = 0,02$$

$$V(\text{Ag}) = 0,02 \text{ мм}$$

$$64x + 108 \cdot 0,01 = 2,8$$

$$x = 0,01$$

$$n(Cu) = 0,01 \text{ моль}$$

$$m(Cu) = 0,01 \text{ моль} \cdot 64 \text{ г/моль} = 0,64 \text{ г}$$

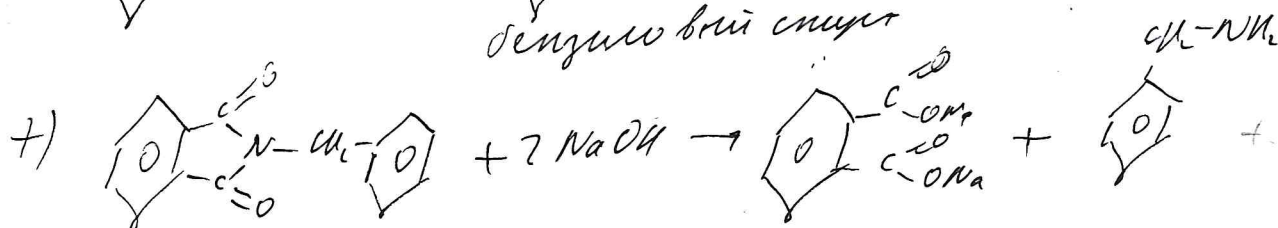
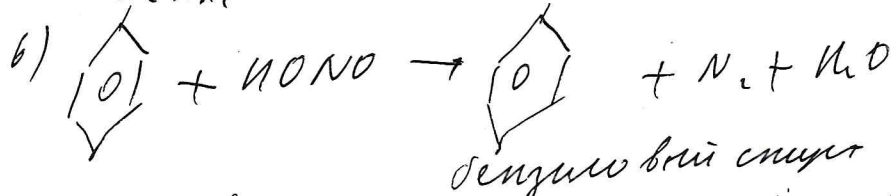
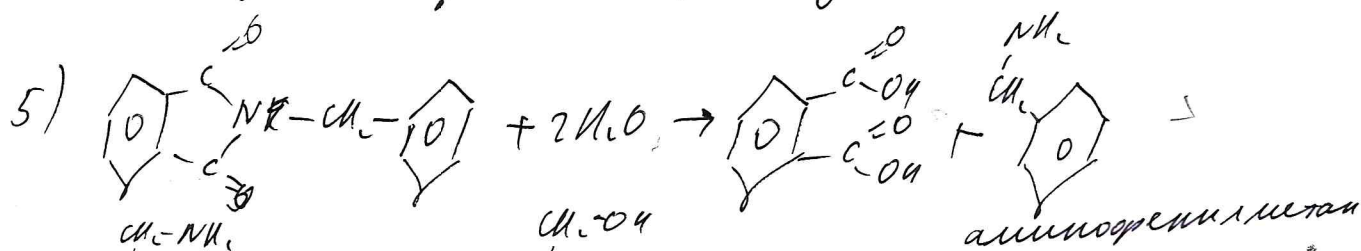
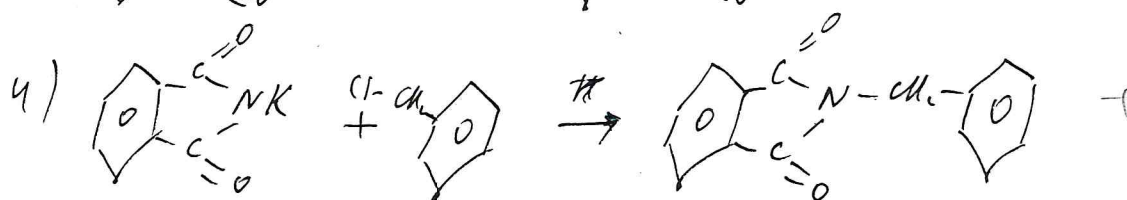
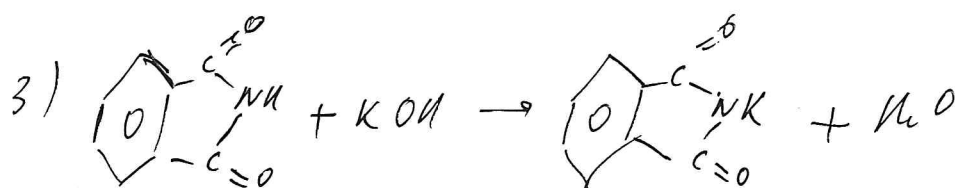
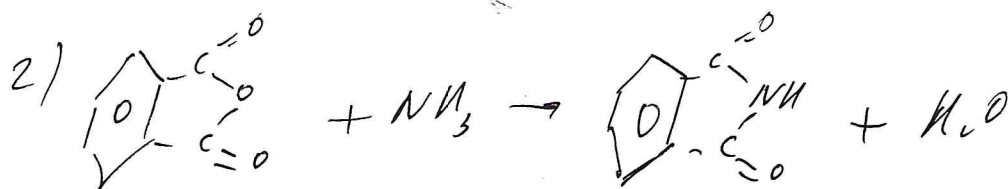
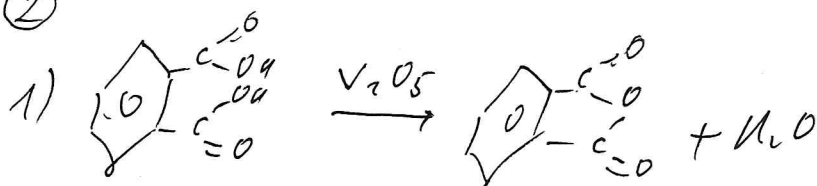
$$m(Ag) = 0,01 \text{ моль} \cdot 108 \text{ г/моль} = 1,08 \text{ г}$$

$$\omega(Cu) = \frac{m(Cu)}{m(Cu) + m(Ag)} \cdot 100\%$$

$$\omega(Cu) = \frac{0,64}{0,64 + 1,08} \cdot 100\% = 37,04\%$$

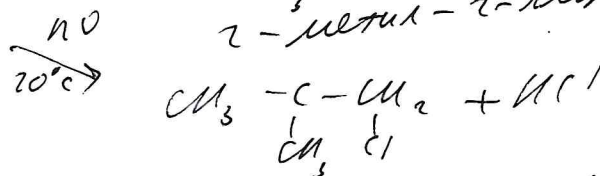
$$\omega(Ag) = 100 - 37,04 = 62,96\%$$

②



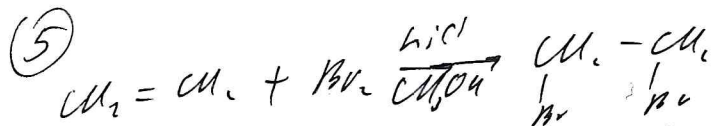
$$2\text{CH}_3 - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_3 + 2\text{Cl}_2 \xrightarrow[20^\circ\text{C}]{h\nu} \text{CH}_3 - \underset{\text{CH}_3}{\overset{\text{Cl}}{\text{C}}} - \text{CH}_3 + 2\text{HCl}$$

2-метил-2-хлорпропан



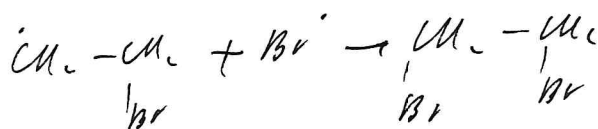
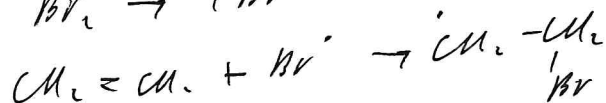
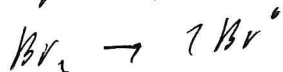
CH_3 (1)
 1 - жор-2-метилпропан
 скорость полимеризации
 при 20°C
 1
 3,8
 5

общая активность
 $3 \cdot 1 = 3$
 $0 \cdot 3,8 = 0$
 $5 \cdot 1 = 5$

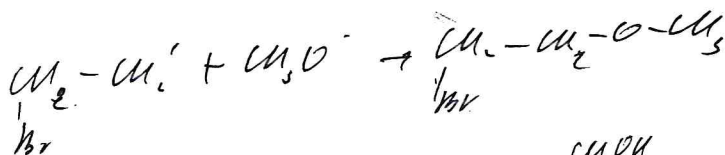
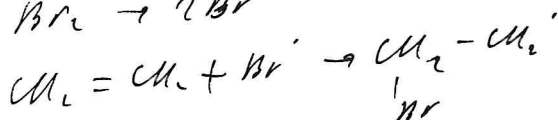
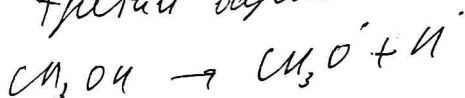
$$\begin{array}{l} \xrightarrow{AlCl_3} CH_3-CH=CH_2 + CH_3-CH_2-CH_3 \\ \xrightarrow{AlCl_3} CH_3-CH_2-CH_2-CH=CH_2 + CH_4 \\ \xrightarrow{AlCl_3} CH_3-CH_2-CH=CH_2 + CH_3-CH_3 \\ \xrightarrow{AlCl_3} CH_2=CH_2 + CH_3-CH_2-CH_2-CH_3 \end{array}$$


из LiCl и CH_3OH

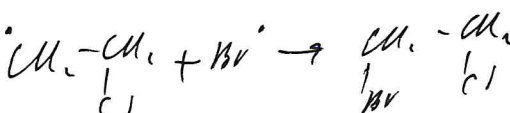
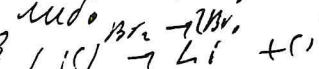
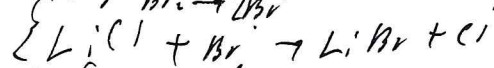
один из вариантов



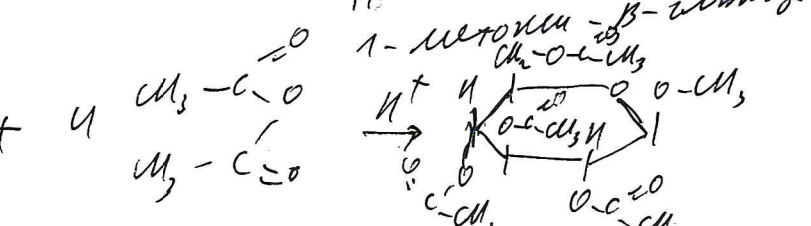
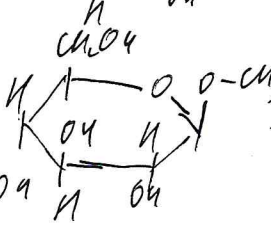
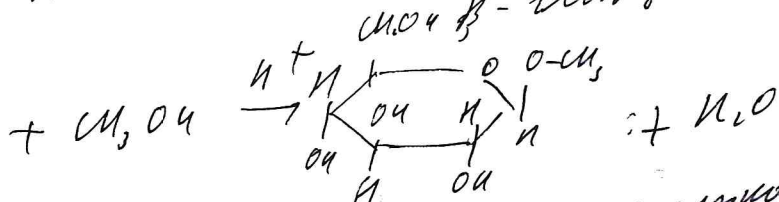
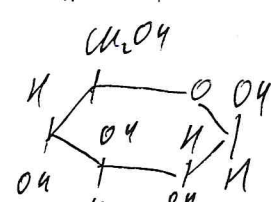
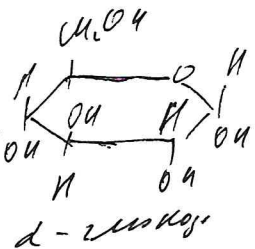
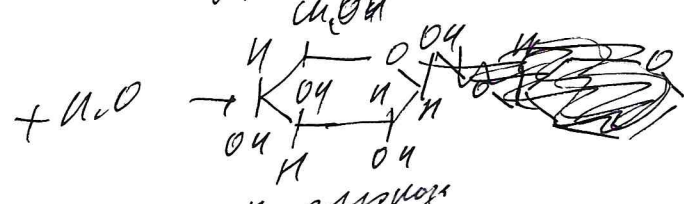
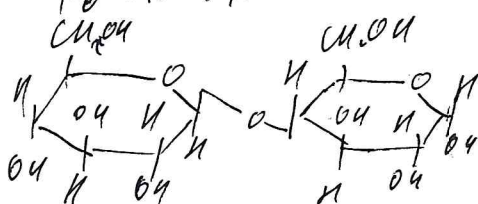
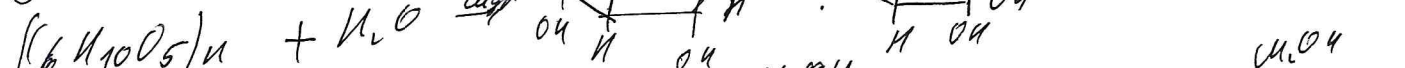
третий вариант



второй из вариантов



⑥



1-метокси-2,3,4,5-тетраацетат-β-глюкоза