



$(ab)c = a(bc)$ $E = mc^2$ H

ШИФР 14380

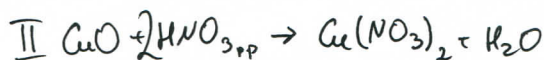
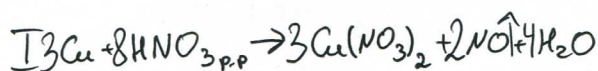
Класс 11 Вариант 7 Дата Олимпиады 18.02.2017

Площадка написания ЛЭТИ

Задача	1	2	3	4	5	6	Σ		Подпись
							Цифрой	Прописью	
Оценка	5	5	3	5	5	0	23	двадцать три	<i>[Signature]</i>

Задание №1

Дано
 $m(\text{Cu} + \text{CuO}) = 6 \text{ г}$
 $V(\text{NO}_2) = 1,12 \text{ л (н.у.)}$
Найти
 $\omega(\text{CuO})$



$$1) V(\text{NO}_2)_{\text{н.у.}} = V(\text{NO}) = 1,12 \text{ л}$$

$$2) \nu(\text{NO}) = \frac{V(\text{NO})}{V_m} = \frac{1,12 \text{ л}}{22,4 \text{ л/моль}} = 0,05 \text{ моль}$$

$$3) \nu(\text{Cu}) = \frac{3}{2} \nu(\text{NO}) = \frac{3}{2} \cdot 0,05 \text{ моль} = 0,075 \text{ моль}$$

$$4) m(\text{Cu}) = \nu(\text{Cu}) \cdot M(\text{Cu}) = 0,075 \text{ моль} \cdot 64 \text{ г/моль} = 4,8 \text{ г}$$

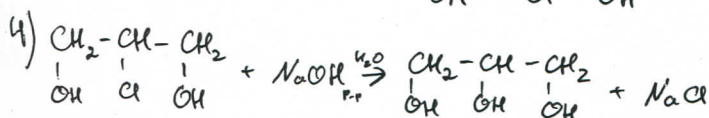
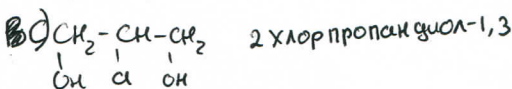
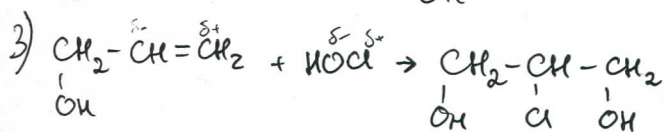
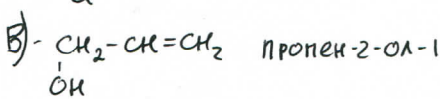
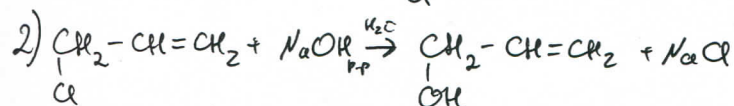
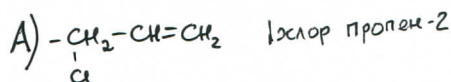
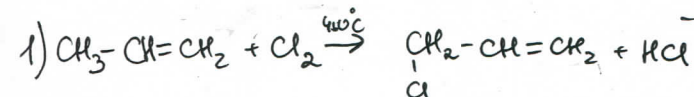
$$5) m(\text{CuO}) = m(\text{CuO}) - m(\text{Cu}) = 6 \text{ г} - 4,8 \text{ г} = 1,2 \text{ г}$$

$$6) \omega(\text{CuO}) = \frac{m(\text{CuO})}{m(\text{Cu})} = \frac{1,2 \text{ г}}{6 \text{ г}} = 0,2 \text{ (20\%)}$$

Ответ: $\omega(\text{CuO}) = 20\%$

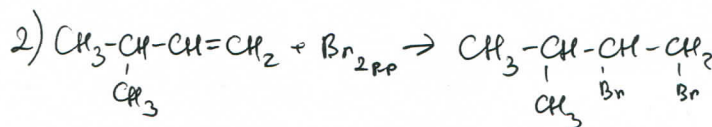
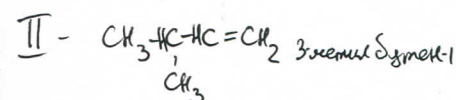
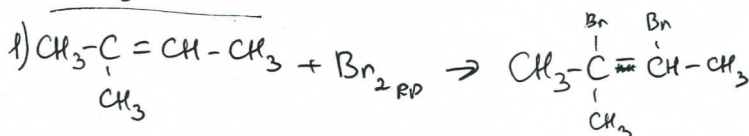
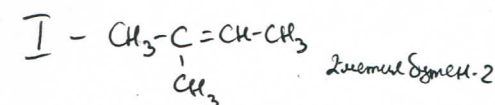
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Задание №4



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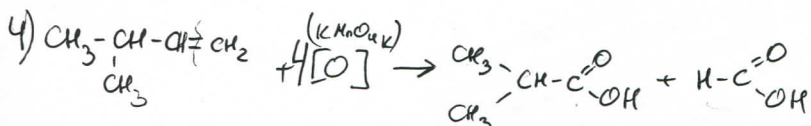
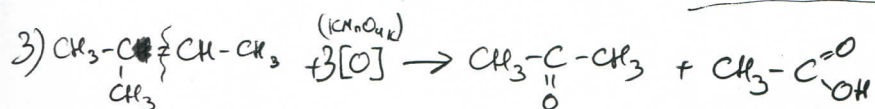
Задание №5



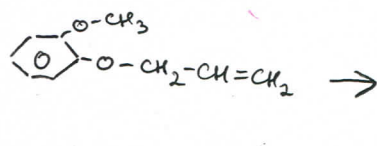
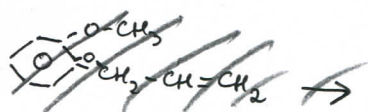
**Использовать только эту сторону листа,
обратная сторона не проверяется!**

ШИФР 14390

Задача №5 (продолжение)

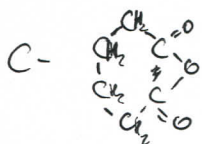
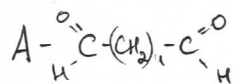


Задача №2

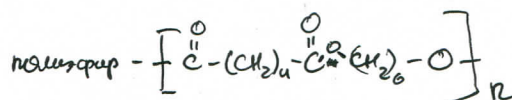
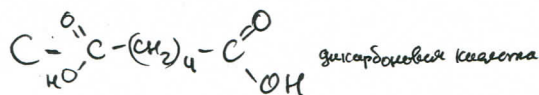
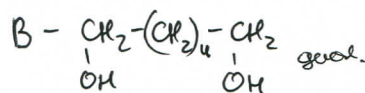
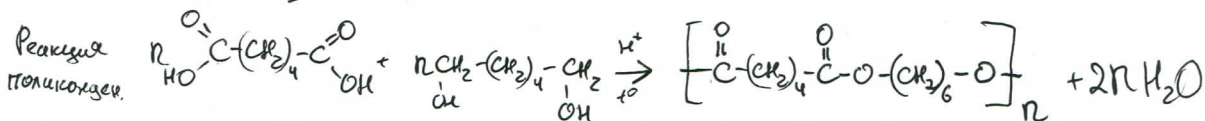


2-метокси-6-аллил спирол.

Задача №3



Реакция
поликонден.



Задача №6

