30

Student name :

**Al-Azhar University**
**Chemistry Department**

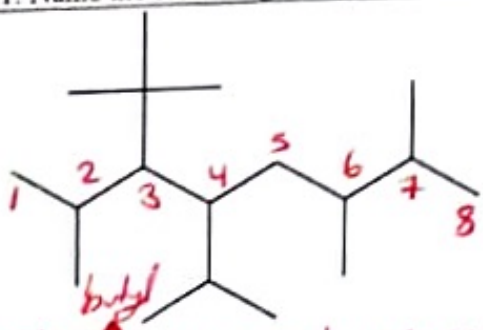
**Org. Chem.**

**Midterm exam**
**1st semester 22/23**

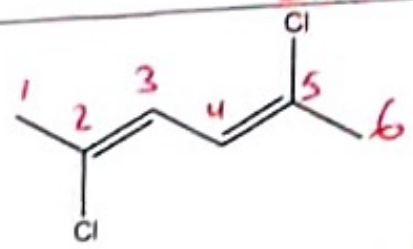
Dr. Hussein solution

6

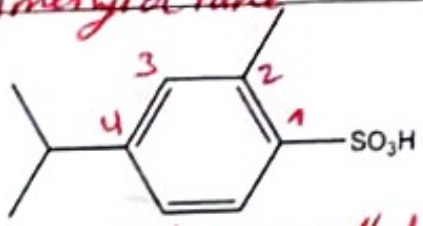
Q1. Name the following compounds:



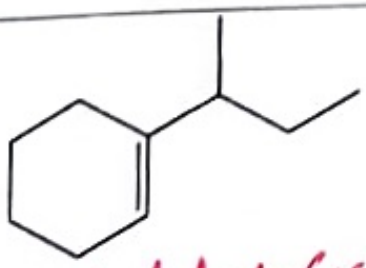
3-Tert.4-isopropyl-2,6,7-trimethyloctane



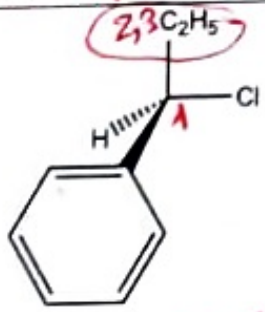
2,5-dichloro-2,4-hexadiene



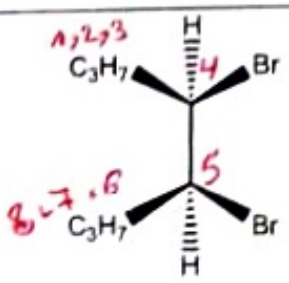
4-isopropyl-2-methyl benzenesulfonic acid



1-sec-butyl-1-cyclohexene

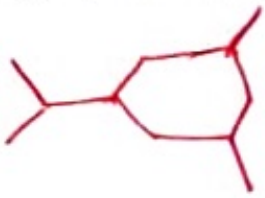
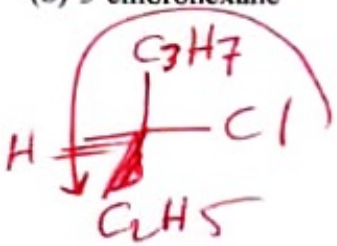
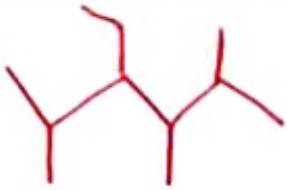
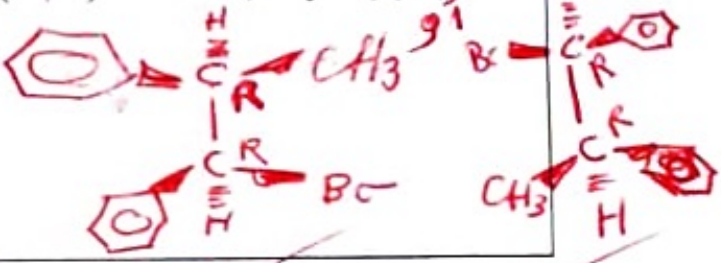


(R)-1-chloro-1-phenyl propane

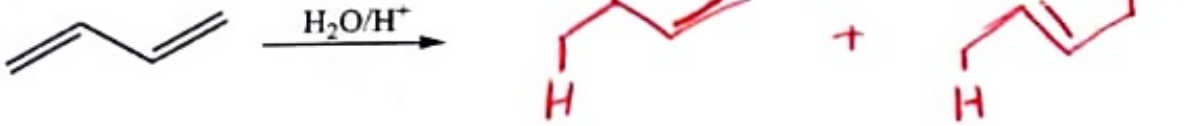


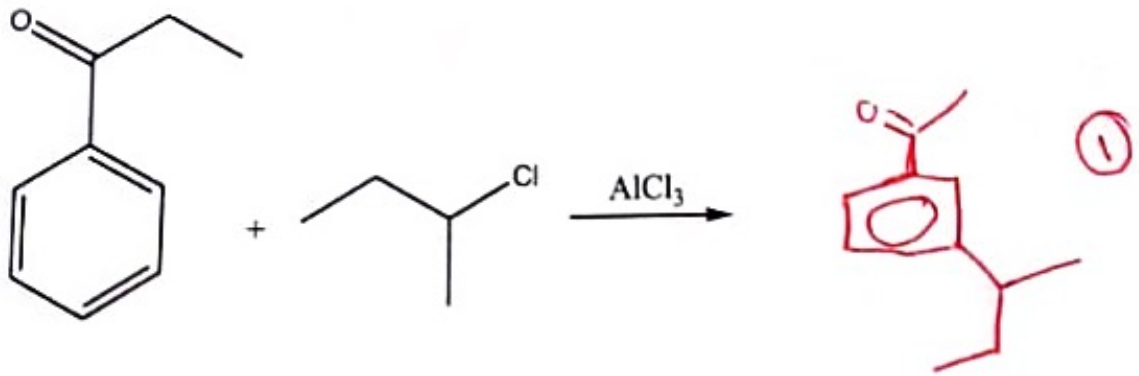
(4R,5S)-4,5-dibromooctane

(6) Q2. Draw the structure of the following compounds:

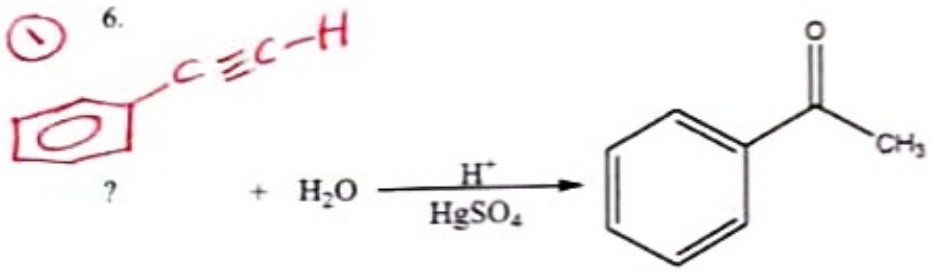
| | |
|---|---|
| 1-isopropyl-3,5-dimethylcyclohexane  | 1,4-dimethyl-1,3-cyclopentadiene  |
| (*S*)-3-chlorohexane   | 1,4-diisobutylbenzene  |
| 3-ethyl-2,4,5-trimethylhexane  | (1*R*,2*R*)-1-bromo-1,2-diphenylpropane   |

(11) Q3. Complete the following reactions:

1.  

2.  

6.

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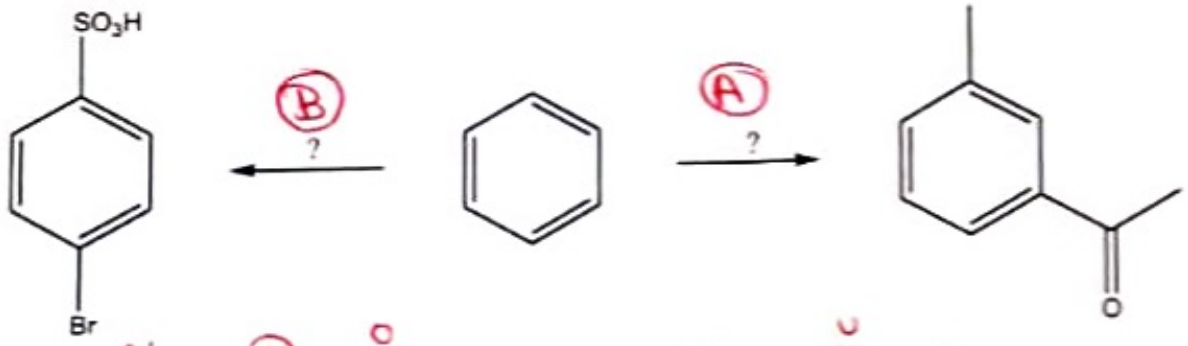
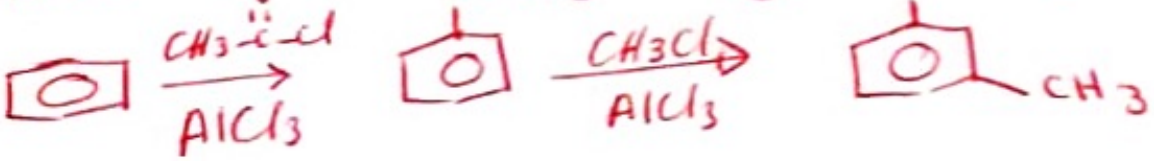
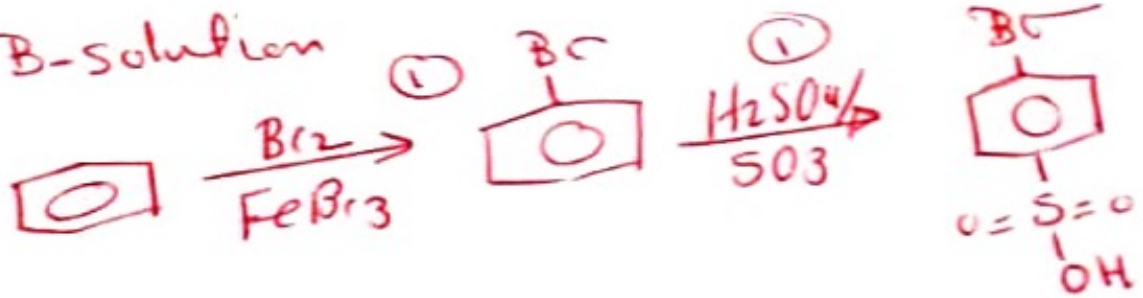
Q4. Describe how each of the following compounds can be prepared starting from benzene:



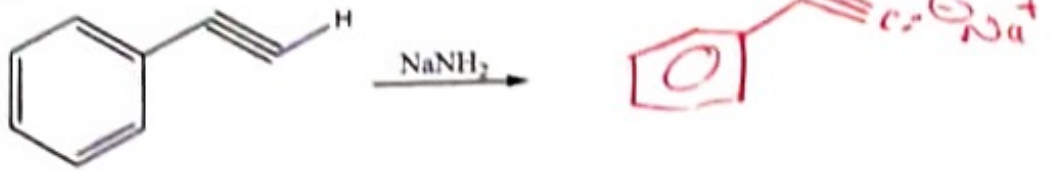

2 A-solution



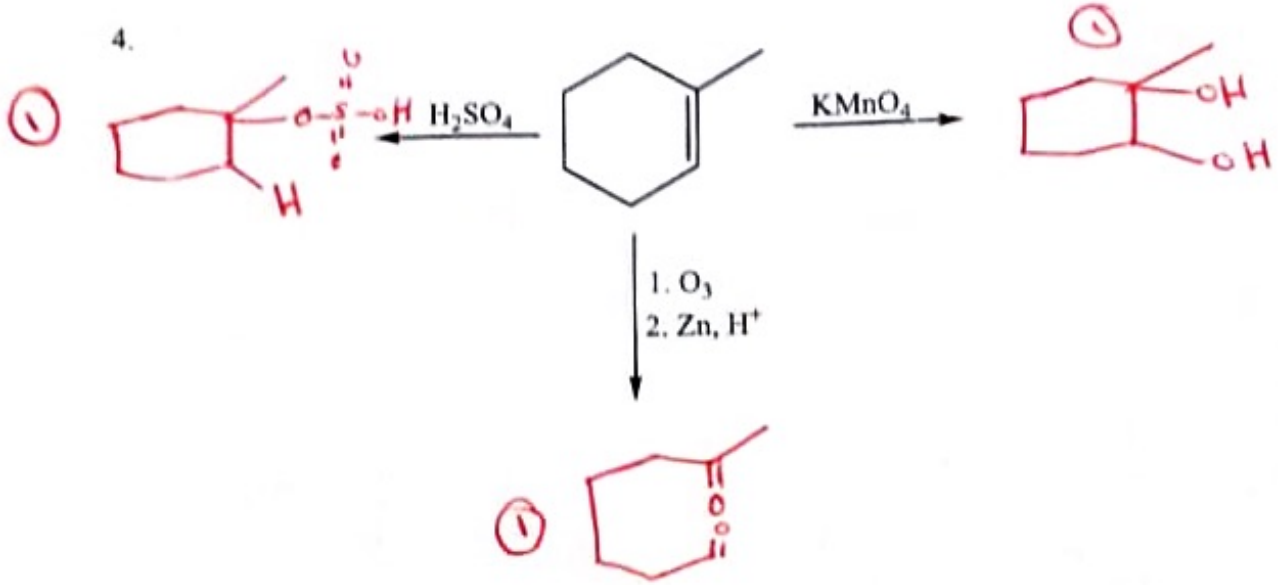

2 B-solution



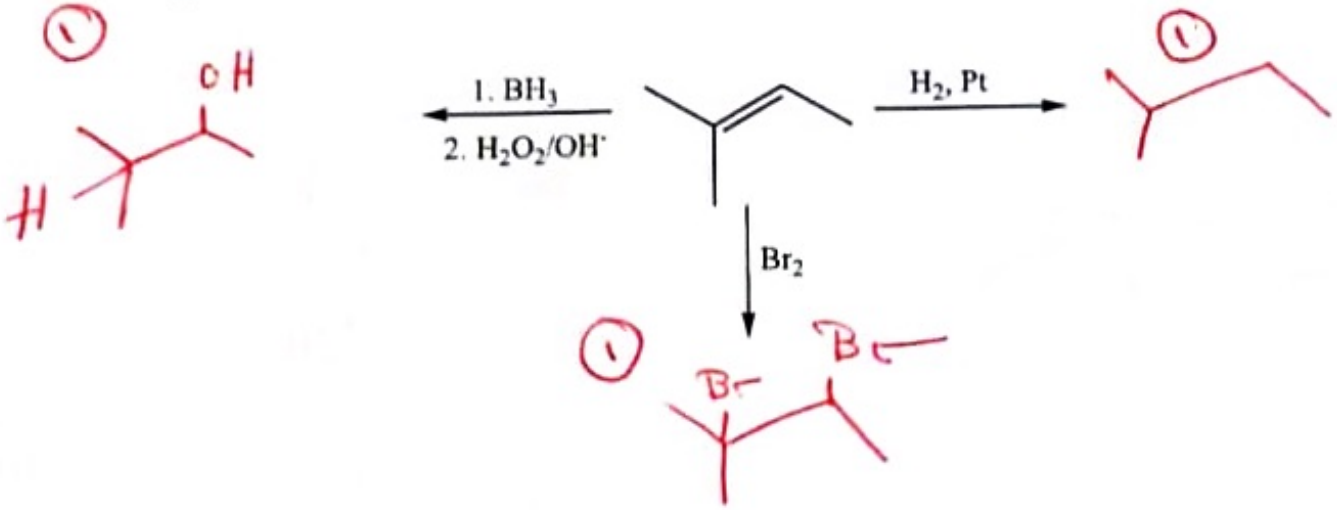
3.


H
NaNH2
Na+

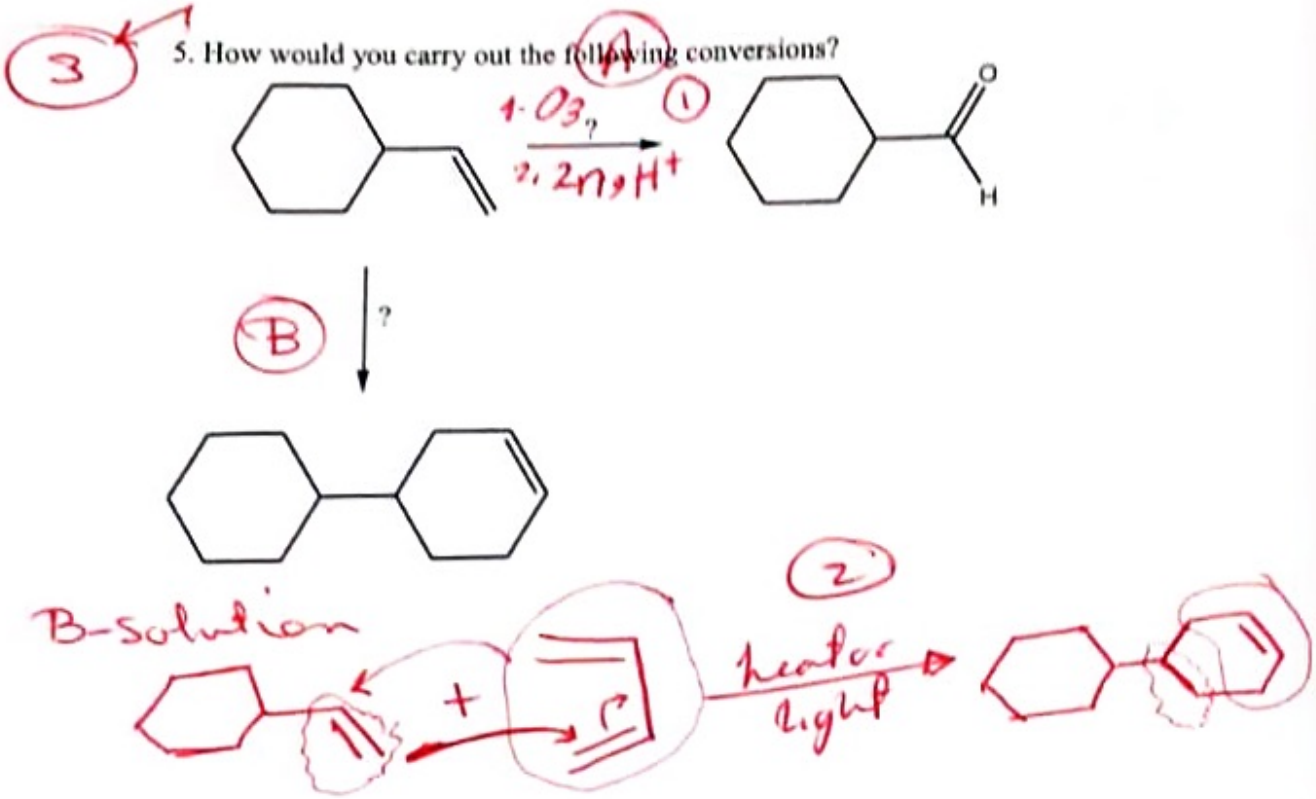
4.


H2SO4
KMnO4
OH
OH
1. O3
2. Zn, H+

5.


OH
H
1. BH3
2. H2O2/OH-
H2, Pt
Br2
Br
Br

5. How would you carry out the following conversions?




Good luck

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MSc. Nisreen Alttar