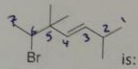
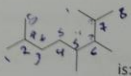


18- The IUPAC name of the following compound is:



- A) 2-Bromo-3,3,6-trimethyl-4-heptene
- B) 2-Bromo-3,3-dimethyl-1-isopropyl-1-pentene
- C) 6-Bromo-2,5,5-trimethyl-3-heptene
- D) 2-Bromo-1-isopropyl-3,3-dimethyl-1-pentene

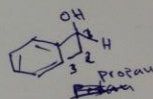
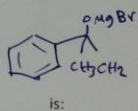
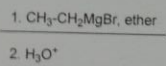
19- The IUPAC name of



- A) 2,5-Dimethyl-6-isopropylheptane
- B) 2,3,4,7-Tetramethylheptane
- C) 2-Isopropyl-3,6-dimethylheptane
- D) 2,3,4,7-Tetramethyloctane

hept 7
octa 8
nona 9
deca 10

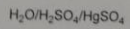
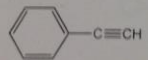
20- The product of the following reaction



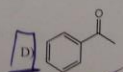
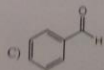
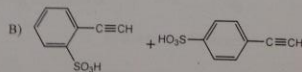
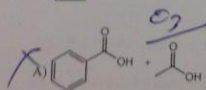
- A) *m*-Propylbenzaldehyde
- C) *m*-Bromobenzaldehyde


- B) 1-Phenylbutanol
- D) 1-phenyl-1-propanol

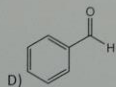
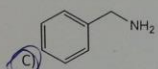
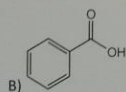
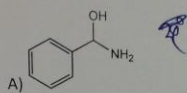
21- The product of the following reaction



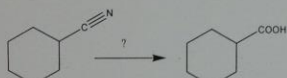
is:



37- The following reaction  $\xrightarrow[2) \text{H}_3\text{O}^+]{1) \text{LiAlH}_4}$ gives:



38- What is the reagent needed for the following transformation?



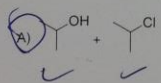
A) CO_2

B) H_3O^+ / Heat

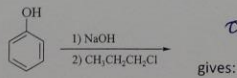
C) KMnO_4

D) LiAlH_4

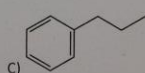
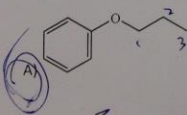
39- The following reaction  $\xrightarrow[\Delta]{\text{HCl}}$ yields:



40- The following reaction

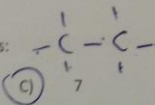


oNa \rightarrow



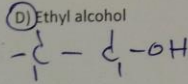
1- The number of sigma bonds in ethane is:

- A) 3 B) 5 C) 7 D) 9

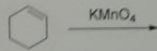


2- Which compound is completely water soluble?

- A) Benzene B) 1,2-Dimethoxyethane C) Cyclohexane D) Ethyl alcohol



3- The product of the reaction shown below

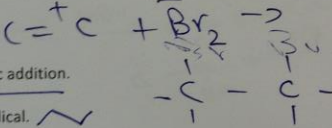


is:

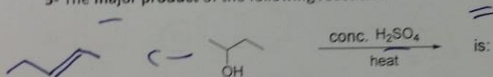
- A) B) C) D)

4- Reaction of alkenes with Br₂ is an example of:

- A) Electrophilic substitution. B) Electrophilic addition. C) Nucleophilic substitution. D) Free radical.



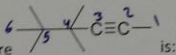
5- The major product of the following reaction:



- A) B) C) D)

6- The IUPAC name of the structure

- A) 2,2,3,3-Tetramethyl-4-hexyne B) 4,4,5,5-Tetramethyl-2-hexyne C) 3,3,4,4-Tetramethyl-2-hexyne D) 3,3,4,4-Tetramethyl-4-hexyne



7- The type of hybridization of the selected carbon N is:

- A) sp B) sp² C) sp³ D) sp³d

linear

2

BP

sp³

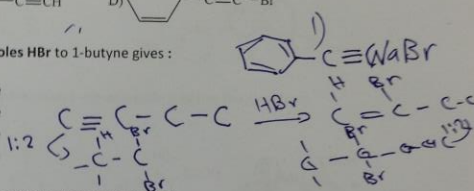
8- The Unknown compound X in the following reaction



- A) c1ccc(cc1)C#CC
 B) c1ccc(cc1)C#C[Na]
 C) c1ccc(cc1)C#C
 D) c1ccc(cc1)C#CBr

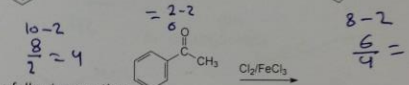
9- The addition of 2 moles HBr to 1-butyne gives :

- A) 2,2-Dibromobutane
 B) 1,2-Dibromobutene
 C) 1,1-Dibromobutane
 D) 1,2-Dibromobutane



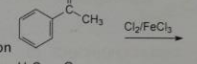
10- Which of the following compounds is an aromatic?

- A) C1=CC=C1
 B) c1ccc2ccccc2c1
 C) C1=CC=C1
 D) c1ccc2c(c1)ccc3ccccc23



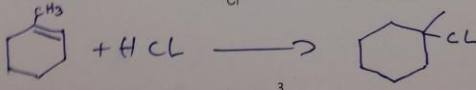
11- The major product of the following reaction

- A) Cc1ccc(Cl)cc1
 B) Cc1ccc(Cl)cc1
 C) Cc1ccc(Cl)cc1
 D) Cc1ccc(Cl)cc1

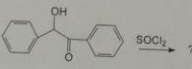


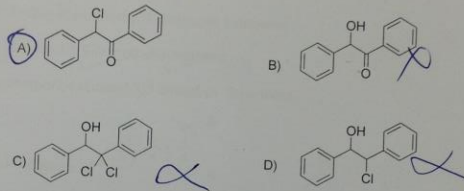
12- Addition of HCl to 1-methylcyclohexene gives:

- A) CC1(Cl)CCCCC1
 B) CC1(Cl)CCCCC1
 C) CC1(Cl)CCCCC1
 D) CC1(Cl)CCCCC1

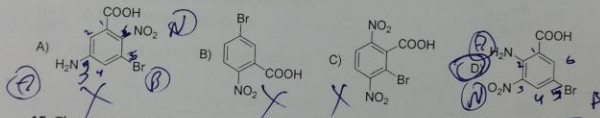


COR

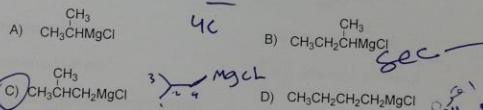
13- The product of the following reaction  is:



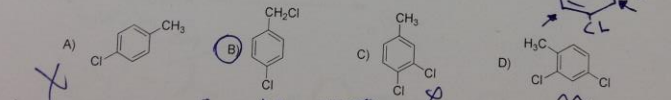
14- The compound 2-Amino-5-bromo-3-nitrobenzoic acid has the structural formula:



15- The structural formula represents Isobutylmagnesium chloride is:



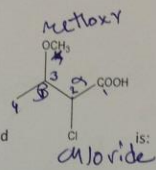
16- Chlorination of *p*-chlorotoluene with 1 mol Cl_2 under UV light gives:



17- Oxidation of primary alcohol with KMnO_4 yields:

- A) Carboxylic acid
 B) Ester
 C) Aldehyde
 D) ketone

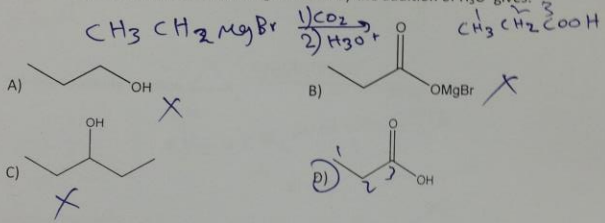
OR
 optio
 Bara



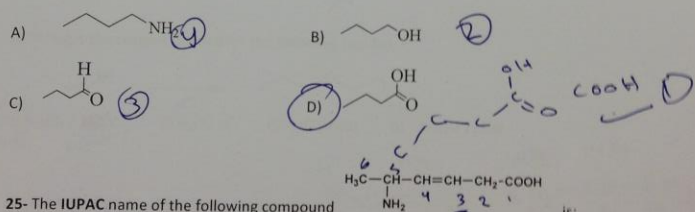
22- The common name of the following compound

- A) α -Chloro- β -methoxy butyric acid
- B) α -Chloro- β -methoxy propionic acid
- C) 2-Chloro-3-methoxy butanoic acid
- D) 2-Chloro-3-methoxy propanoic acid

23- Reaction of $\text{CH}_3\text{CH}_2\text{MgBr}$ with CO_2 followed by the addition of H_3O^+ gives:



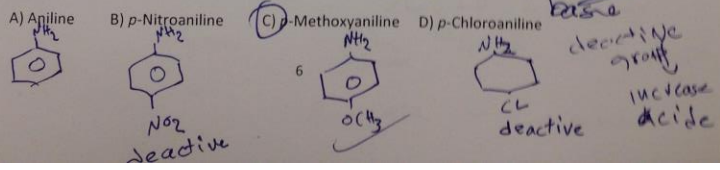
24- Which of the following compounds has the highest boiling point?




25- The IUPAC name of the following compound

- A) 3-Amino-3-hexenoic acid
- B) 2-Amino-3-hexenoic acid
- C) 5-Amino-4-hexenoic acid
- D) 5-Amino-3-hexanoic acid

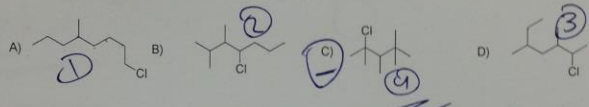
26- The strongest base of the following amines is:



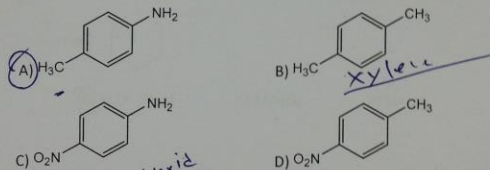
32- The IUPAC name of  is:

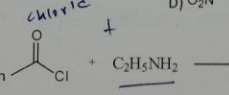
- A) 1-Bromo-3-methyl-4-cyclohexanol
- B) 4-Bromo-2-methylcyclohexanol**
- C) 5-Bromo-2-hydroxy-1-methylcyclohexane
- D) 1-Bromo-4-hydroxy-5-methylcyclohexane

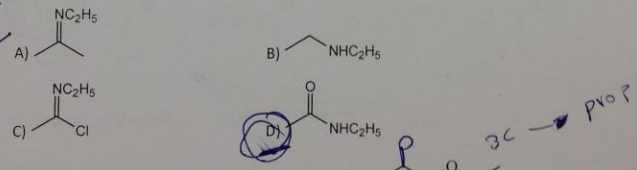
33- The molecule with the least boiling point is:

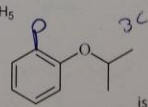


34- The structure of *p*-Toluidine is:



35- The following reaction  yields:



36- The common name of the following compound  is:

- A) Propyl phenyl ether
- B) Phenyl isopropyl ether**
- C) Benzyl isopropyl ether
- D) Isopropoxy-benzene

27- The following reaction c1ccccc1C(=O)O + CCCO $\xrightarrow{H^+}$ gives:

- A) CC(=O)Oc1ccccc1 B) CCOC(=O)c1ccccc1
 C) CC(O)OC(=O)c1ccccc1 D) CC(=O)OC(=O)c1ccccc1

28- The following reaction C1CO1 $\xrightarrow{CH_3CH_2OH / H^+}$ gives:

- A) CCCCO B) CCCCCO
 C) CCOCCO D) CCOCC
- Handwritten notes:*
CH2(OH)-CH2-O-CH2-CH3
 1 2 3 4

29- What is the reagent needed for the following reaction?

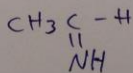
- CCCO $\xrightarrow{?}$ CCOC
- A) $H_2SO_4 / 140^\circ C$ B) H_2O / H^+ C) $HCl / heat$ D) $NaOH / heat$

30- The IUPAC name of the following structure

- A) 2-Methoxypropyl amine B) 3-Methoxy-1-propanamine
 C) 1-Amino-2-methylpropane D) Aminopropyl methyl ether

31- Which of the reagents shown below will react with acetaldehyde to give an imine?

- A) NH_2-NH_2 B) $PhNHNH_2$



- C) NH_3 D) NH_2OH

Handwritten notes:
 $CH_3C(=O)H + NH_3 \Rightarrow CH_3C(=NH)H$
 imine \rightarrow imine