

* ادا جانات غر صحیحہ

Question **1**

Not yet answered

Marked out of 1.00

Flag question

The strongest acidic compound of the following is:

Select one:


- p*-nitrophenol
- p*-bromophenol
- p*-methylphenol
- phenol.

[Clear my choice](#)

Question **2**

Not yet answered

Marked out of 1.00

 Flag question

Phenols are stronger than alcohols as acids because of

Select one:


- hydrogen bonding in phenols.
- resonance stabilization of phenoxide ions.
- resonance stabilization of alkoxide ions.
- resonance stabilization of phenols.
- resonance stabilization of alcohols.

[Clear my choice](#)

Question **3**

Not yet answered

Marked out of 1.00

 Flag question

Reaction of alcohols with thionyl chloride gives:

Select one:


- RSO_3H
- alkene
- alkyl chloride
- aldehyde

[Clear my choice](#)

Question **4**

Not yet answered

Marked out of 1.00

 Flag question

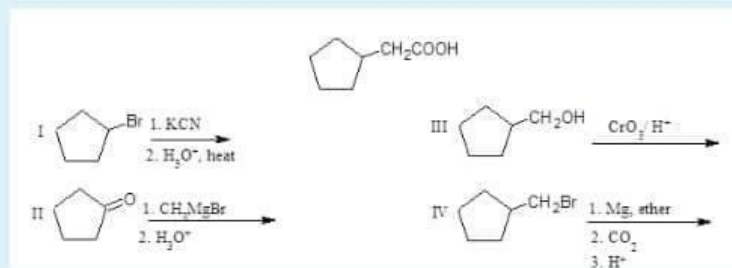
What is the IUPAC name for isobutyl alcohol?

Select one:

- 2-methyl-2-butanol
- 2,2-dimethylpropanol
- 1-butanol
- 2-methyl-1-propanol
- 2-butanol

[Clear my choice](#)

The best method to prepare the following



Select one:

- III
- IV
- I
- II

[Clear my choice](#)

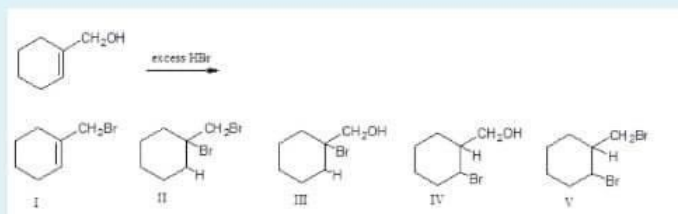
Question **6**

Not yet answered

Marked out of 1.00

🚩 Flag question

What is the major product of the following reaction?

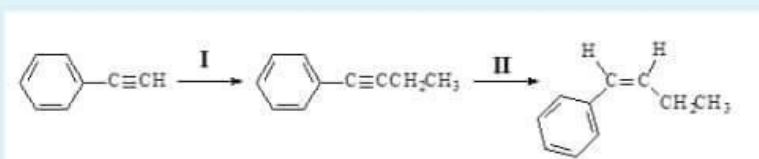


Select one:

- V
- II
- III
- IV
- I

[Clear my choice](#)

In the following series of reactions, identify the reagents (I & II):



Select one:

- I = NaNH_2 , $\text{CH}_3\text{CH}_2\text{Br}$; II = Li, NH_3
- I = NaOH, $\text{CH}_3\text{CH}_2\text{Br}$; II = H_2 , Lindlar catalyst
- I = NaNH_2 , $\text{CH}_3\text{CH}_2\text{Br}$; II = H_2 , Lindlar catalyst
- I = NaOH, $\text{CH}_3\text{CH}_2\text{Br}$; II = Li, NH_3

[Clear my choice](#)

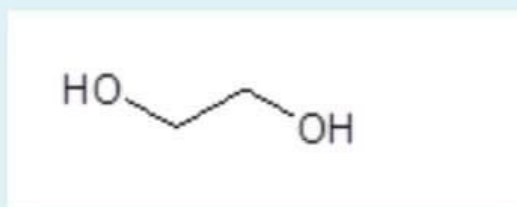
Question **8**

Not yet answered

Marked out of 1.00

🚩 Flag question

The common name of the following compound is:



Select one:

- Glycerol
- ethylene glycol
- 1,2-ethanediol
- 1,2-dihydroxyethane

[Clear my choice](#)

When cyclohexene is treated with peroxyacetic acid, the product that forms is:

Select one:

- 1,2-cyclohexanediol
- cyclohexanediol
- hexanol
- dicyclohexyl ether
- cyclohexene oxide

[Clear my choice](#)

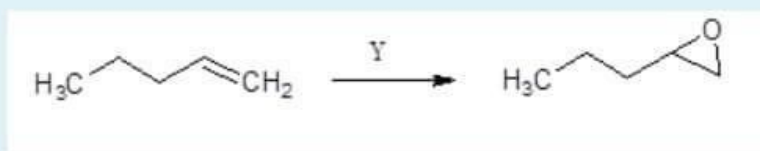
Question **10**

Not yet answered

Marked out of 1.00

🚩 Flag question

The reagent (Y) that could convert alkene to epoxide is:



Select one:

- KMnO₄
- O₂
- m*-CPBA
- AgNO₃

[Clear my choice](#)

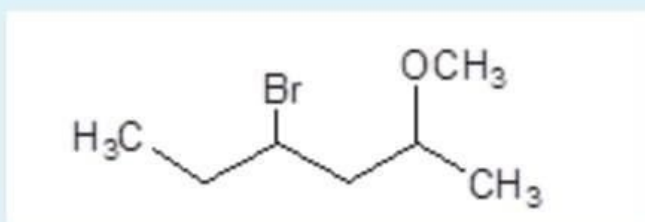
Question **11**

Not yet answered

Marked out of 1.00

Flag question

The name of the following compound is:

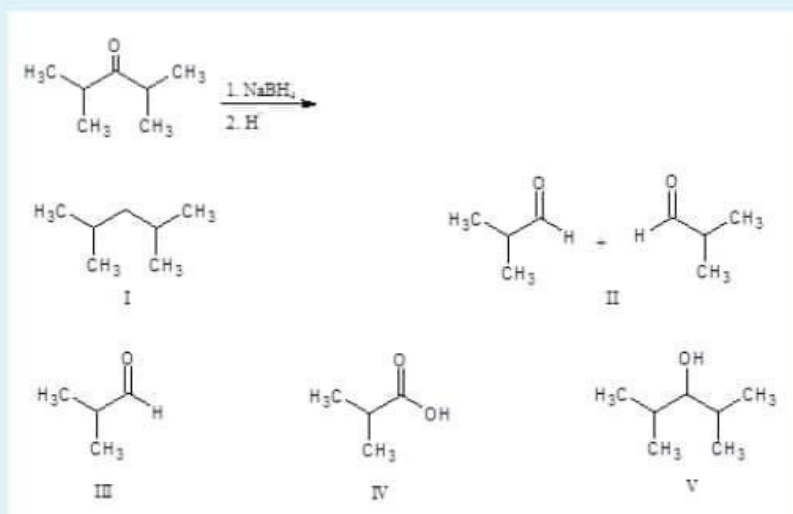


Select one:

- 3-bromo-5-methoxyhexane
- 3-bromo-2-methoxy-2-methylpentane
- 2-methoxy-4-bromohexane
- 4-bromo-2-methoxyhexane

[Clear my choice](#)

What is the major product of the following reaction?



Select one:

II

III

IV

V

I

[Clear my choice](#)

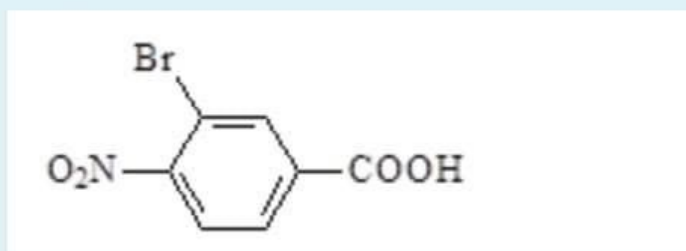
Question **12**

Not yet answered

Marked out of 1.00

🚩 Flag question

The correct name for the following compound is:



Select one:

- 3-bromo-4-nitrobenzoic acid
- 4-nitro-3-bromobenzoic acid
- 2-bromo-4-carboxynitrobenzene
- 4-nitro-5-bromobenzoic acid

[Clear my choice](#)

Which statements (is) are true for an E1 reaction?

I) The rate limiting step of the reaction involves only the alkyl halide.

II) The rate limiting step of the reaction involves the alkyl halide and the base.

III) There is an intermediate carbocation.

IV) The order of reactivity is $1^\circ > 2^\circ > 3^\circ$.

Select one:


- II+IV
- I, III, IV
- II, III
- I, III

[Clear my choice](#)

Question **13**

Not yet answered

Marked out of 1.00

 Flag question

Dehydration of 1,2-dimethyl-1-cyclohexanol gives:

Select one:


- Four alkenes
- One alkene
- Two alkenes
- Three alkenes

[Clear my choice](#)

Question **14**

Not yet answered

Marked out of 1.00

 Flag question

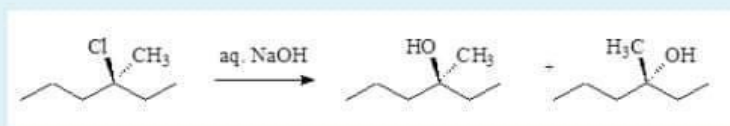
The number of possible monobromination products, including cis-trans isomers, of methylcyclopentane is

Select one:

- 8
- 4
- 2
- 5
- 6

[Clear my choice](#)

If the reaction rate of the following reaction is x , doubling the concentration of NaOH would give what rate?



Select one:


- $x^2 / 2$
- x^2
- $2x$
- no change in reaction rate
- $x/2$

[Clear my choice](#)

Question **16**

Not yet answered

Marked out of 1.00

 Flag question

Which of the following is the best description for the C=N bond?

Select one:

- The two bonds are of same property
- One bond is from $sp^2(\text{C})-sp^2(\text{N})$ and the other from 2p-orbitals overlapping
- The two bonds result from $sp^3(\text{C})-sp^2(\text{N})$ overlap
- The two bonds result from $sp^2(\text{C})-sp^2(\text{N})$ overlap

[Clear my choice](#)

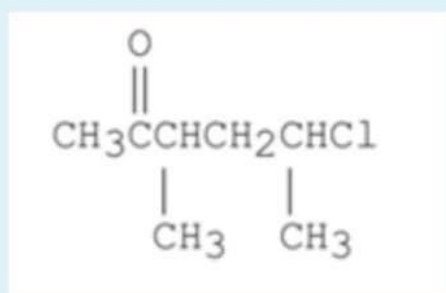
Question **28**

Not yet answered

Marked out of 1.00

Flag question

What is the IUPAC name for the following compound?



Select one:

- 1-Chloro-1,3-dimethyl-4-pentanone
- 5-Chloro-3-methyl-2-hexanone
- 5-Chloro-3-methylhexanone
- 5-Chloro-3,5-dimethyl-2-pentanone

[Clear my choice](#)

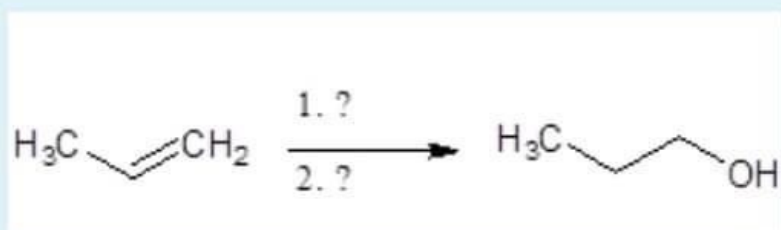
Question **18**

Not yet answered

Marked out of 1.00

🚩 Flag question

Select the right conditions that form shown product



Select one:

- H₂ then H₂O₂/⁻OH
- BF₃ then H₂O₂/⁻OH
- H₃ then H₂O₂/⁻OH
- BH₃ then H₂O₂/⁻OH

[Clear my choice](#)

What is the common name for HCOOH ?

Select one:

- malonic acid
- propionic acid
- oxalic acid
- formic acid
- acetic acid

[Clear my choice](#)

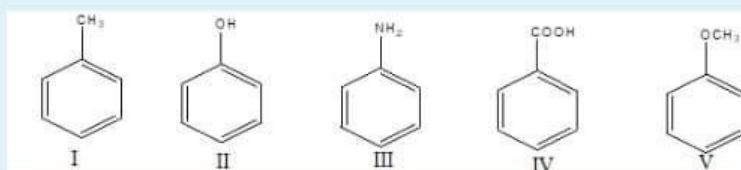
Question **20**

Not yet answered

Marked out of 1.00

🚩 Flag question

Which of the following structures accurately represents anisole?



Select one:

- a. V
- b. II
- c. IV
- d. III
- e. I

[Clear my choice](#)

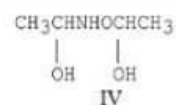
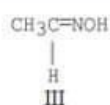
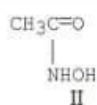
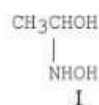
Question **22**

Not yet answered

Marked out of 1.00

🚩 Flag question

What is the major organic product of the reaction of acetaldehyde with hydroxylamine (NH₂OH)?



Select one:

II

III

IV


I

[Clear my choice](#)

Question **23**

Not yet answered

Marked out of 1.00

 Flag question

The carbocation intermediate is the intermediate formed in both:

Select one:

- S_N1 and E_2 reactions
- S_N2 and E_2 reactions
- E_1 and E_2 reactions
- S_N1 and S_N2 reactions
- S_N1 and E_1 reactions

[Clear my choice](#)

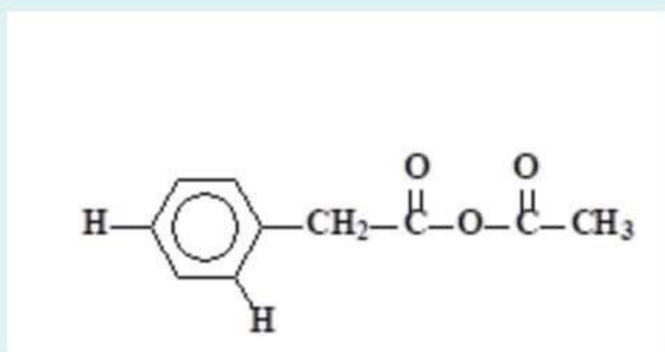
Question **24**

Not yet answered

Marked out of 1.00

Flag question

The following compound can be considered as:

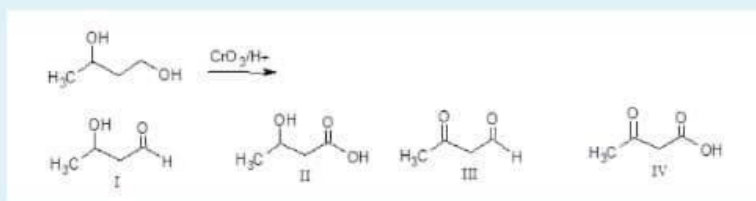


Select one:

- ketone
- anhydride
- ester
- aldehyde

[Clear my choice](#)

What is the major product of the following reaction?

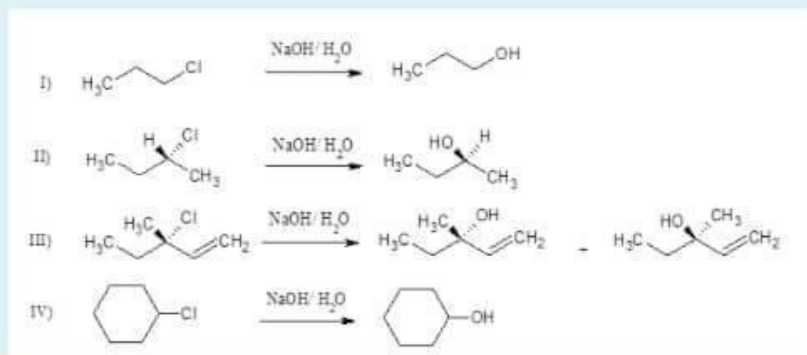


Select one:

- I and IV
- III
- IV
- I
- II

[Clear my choice](#)

Which of the following is an S_N1 reaction?

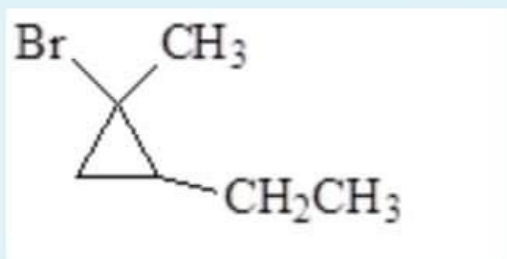


Select one:

- IV
- I
- II
- III

[Clear my choice](#)

A correct IUPAC name for

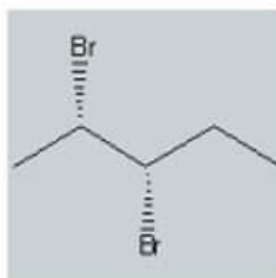
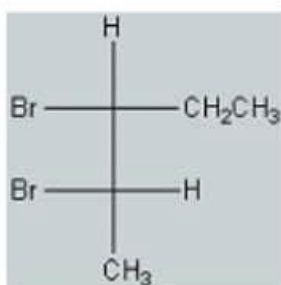


Select one:

- 1-bromo-2-ethyl-1-methylcyclopropane
- 1-bromo-3-ethyl-1-methylcyclopropane
- 1-bromo-1-ethyl-2-methylcyclopropane
- 2-bromo-1-ethyl-2-methylcyclopropane

[Clear my choice](#)

What is the stereochemical relationship between the following two molecules?



Select one:

- None of these
- Identical
- Enantiomers
- Diastereoisomers

[Clear my choice](#)

In S_N2 reactions

Select one:

- The rate of reaction depends only on the concentration of nucleophile
- The rate of reaction depends on both the concentration of alkylhalide and the nucleophile
- The rate of reaction depends on both the concentration of alkylhalide and the electrophile
- The rate of reaction depends only on the concentration of alkylhalide

[Clear my choice](#)

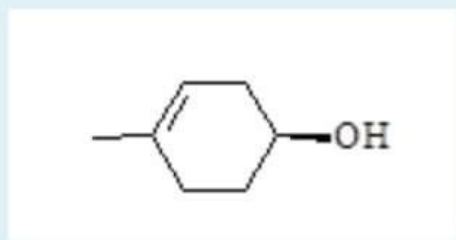
Question **30**

Not yet answered

Marked out of 1.00

🚩 Flag question

What is the correct name for the following compound?



Select one:

- (S)-1-methyl-2-cyclohexen-4-ol
- (S)-4-methyl-3-cyclohexen-1-ol
- (R)-4-methyl-4-cyclohexen-1-ol
- (R)-1-methyl-1-cyclohexen-4-ol

[Clear my choice](#)

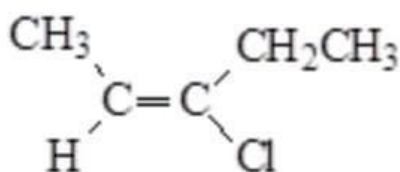
Question **31**

Not yet answered

Marked out of 1.00

🚩 Flag question

The name of the molecule shown is



Select one:

- cis-3-chloro-2-pentene
- E*-3-chloro-2-pentene
- trans-3-chloro-3-pentene
- Z*-3-chloro-3-pentene
- monochloro-2-cis-pentene

[Clear my choice](#)

If a solution of a compound (30.0 g/100ml of a solution) has a measured rotation of $+15^\circ$ in 20 cm tube. What is the specific rotation?.

Select one:


- $+ 50^\circ$
- $+ 15^\circ$
- $+ 25^\circ$
- $+ 7.5^\circ$
- $+ 4^\circ$

[Clear my choice](#)

Question **33**

Not yet answered

Marked out of 1.00

 Flag question

Which of the following is an incorrect representation of relative nucleophile strength?

Select one:

- $I^- > Br^-$
- $CH_3^- > HO^-$
- $NH_2^- > F^-$
- $HO^- > HS^-$
- $CH_3O^- > CH_3OH$

[Clear my choice](#)

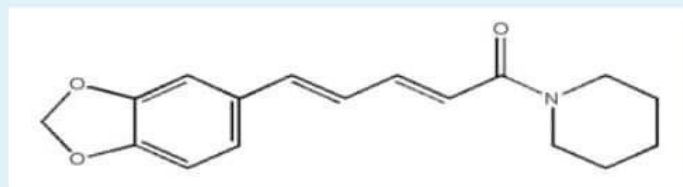
Question **34**

Not yet answered

Marked out of 1.00

Flag question

Piperine, a major component of black pepper, is shown below. To what class of carboxylic acid derivative does piperine belong?



Select one:

- anhydride
- nitrile
- amide
- acyl halide
- ester

[Clear my choice](#)

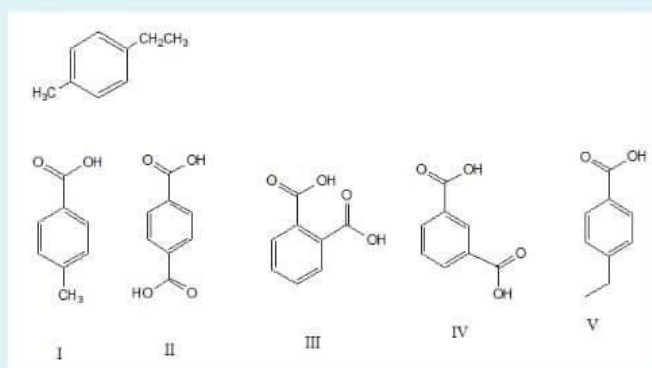
Question **35**

Answer saved

Marked out of 1.00

Flag question

Oxidation of the compound below with KMnO_4 gives



Select one:

- III
- IV
- II
- I
- V

[Clear my choice](#)

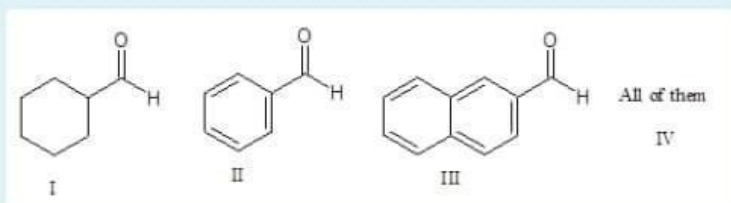
Question **36**

Answer saved

Marked out of 1.00

🚩 Flag question

Which of the following used as a suffix of carbaldehyde in naming?

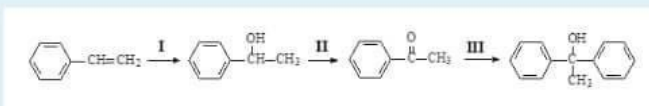


Select one:

- I and II
- II
- All
- III
- I

[Clear my choice](#)

Identify the reagents represented by the letters **I-III** in the following Scheme:



Select one:

- I** = $\text{H}_2\text{O}/\text{H}^+$; **II** = Li/NH_3 ; **III** = phenylmagnesiumbromide then H_2O
- I** = BH_3 then H_2O_2 , NaOH ; **II** = CrO_3/HCl ; **III** = phenylmagnesiumbromide then H_2O
- I** = $\text{H}_2\text{O}/\text{H}^+$; **II** = NaBH_4 then H^+ ; **III** = phenylmagnesiumbromide then H_2O
- I** = $\text{H}_2\text{O}/\text{H}^+$; **II** = CrO_3/HCl ; **III** = phenylmagnesiumbromide then H_2O

[Clear my choice](#)

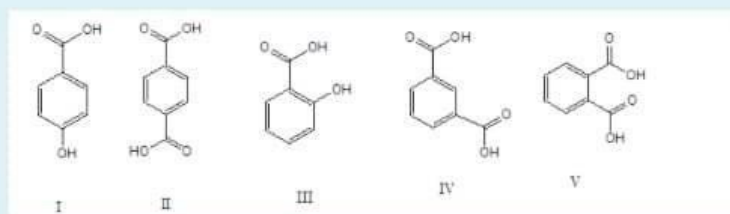
Question **38**

Not yet answered

Marked out of 1.00

Flag question

Which one of the carboxylic acids below, is isophthalic acid



Select one:


- V
- IV
- III
- II
- I

[Clear my choice](#)

Question **39**

Not yet answered

Marked out of 1.00

 Flag question

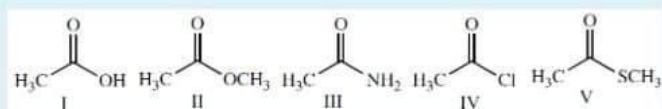
What is the class of compound produced from the reaction of a ketone with hydrazine?

Select one:

- semicarbazone
- imide
- amide
- hydrazone
- oxime

[Clear my choice](#)

Which one of the following compounds represents ester?.



Select one:

- II
- IV
- V
- III
- I

[Clear my choice](#)

The rate-determining step in the following reaction is:



Select one:

- ionization of the alcohol to give a carbocation
- loss of water from the protonated alcohol to give a carbocation
- displacement of water from the protonated alcohol by bromide ion
- capture of a carbocation by bromide ion
- protonation of the alcohol.

[Clear my choice](#)

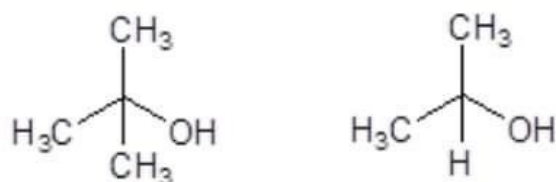
Which of the following may be separated by ordinary physical methods?

Select one:

- (2*R*,3*S*)-1,2-dibromobutane and (2*S*,3*R*)-1,2-dibromobutane
- (*R*)-2-bromobutane and (*S*)-2-bromobutane
- (*R*)-3-bromo-1-butene and (*S*)-3-bromo-1-butene
- cis*-2-bromo-2-butene and *trans*-2-bromo-2-butene

[Clear my choice](#)

Which of the following reagents can be used to differentiate between the following compounds?



Select one:

- Br₂/CCl₄
- NaBH₄
- HCl/ZnCl₂
- NaOH

[Clear my choice](#)

Question **44**

Not yet answered

Marked out of 1.00

🚩 Flag question

Upon ozonolysis which alkene will give only acetone $(\text{CH}_3)_2\text{C}=\text{O}$?.

Select one:

- 2-methyl-2-pentene
- 2,3-dimethyl-2-butene
- 2-methyl-3-hexene
- 2,2-dimethyl-2-butene

[Clear my choice](#)

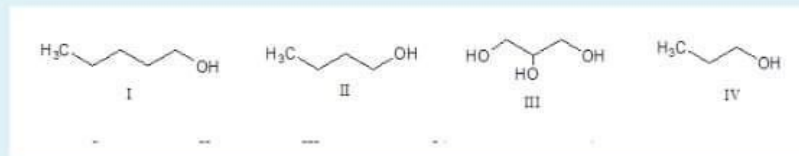
Question **45**

Not yet answered

Marked out of 1.00

Flag question

Which of the following compounds would have the lowest boiling point?



Select one:

III

IV

I

II

[Clear my choice](#)

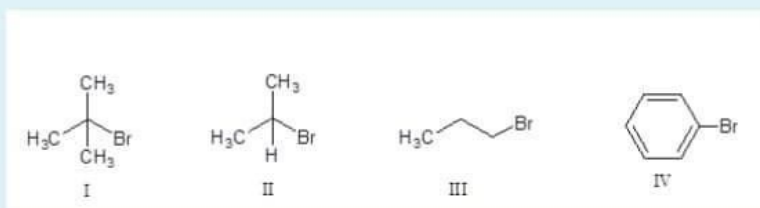
Question **46**

Not yet answered

Marked out of 1.00

🚩 Flag question

Which of the following will react most rapidly in S_N1 mechanism?.

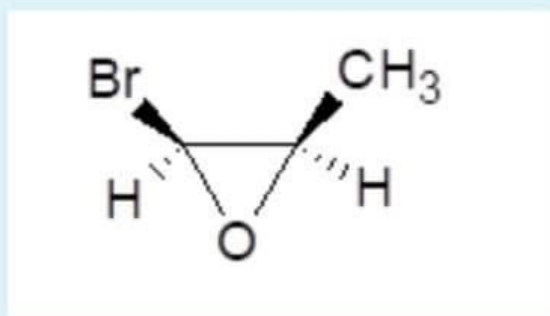


Select one:

- I
- III
- II
- IV

[Clear my choice](#)

The correct name of the following compound is:



Select one:


- cis-2-bromo-1-methyloxirane
- Cis-1-bromo-2-methyloxirane
- cis-3-bromo-2-methyloxirane
- Cis-2-bromo-3-methyloxirane

[Clear my choice](#)

Question **48**

Not yet answered

Marked out of 1.00

 Flag question

The reaction of a Grignard reagent with acetaldehyde followed by acid hydrolysis will

produce what type of product?

Select one:

- a primary alcohol
- a tertiary alcohol
- a ketone
- an acid
- a secondary alcohol

[Clear my choice](#)

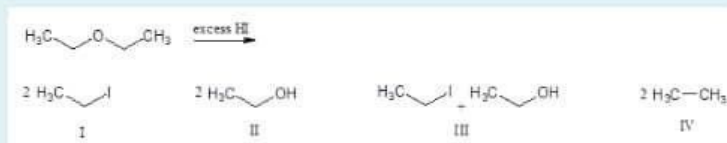
Question **49**

Not yet answered

Marked out of 1.00

Flag question

What is the major product of the following reaction?.



Select one:

- III
- I
- II
- IV

[Clear my choice](#)

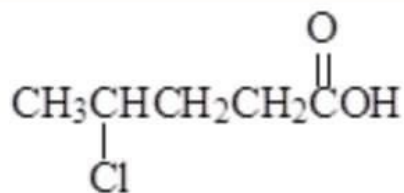
Question **50**

Not yet answered

Marked out of 1.00

🚩 Flag question

What is the name for the following compound?



Select one:

- 1- Chloropentanoic acid
- 2-Chloropentanoic acid
- 4-Chloropentanoic acid
- 3-Chloropentanoic acid

[Clear my choice](#)

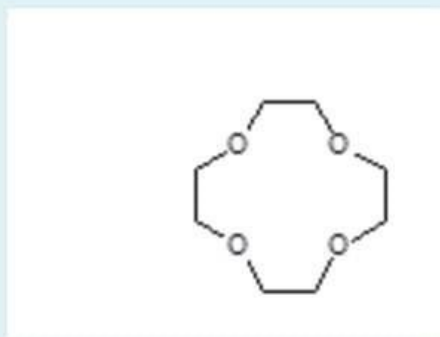
Question **52**

Not yet answered

Marked out of 1.00

🚩 Flag question

The name of the following compound is:

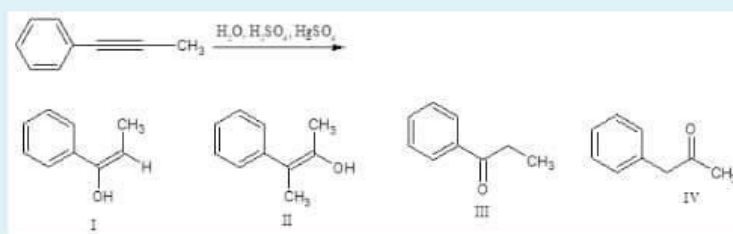


Select one:

- 8-crown-4
- 12-crown-4
- 12-[4]crown
- 4-crown-12

[Clear my choice](#)

The final product(s) of the following reaction is:

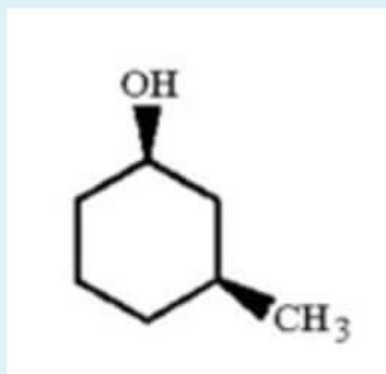


Select one:

- III + IV
- I+II
- I+III
- II + IV

[Clear my choice](#)

When the optically active alcohol below is oxidized by H_2CrO_4 , the major product is

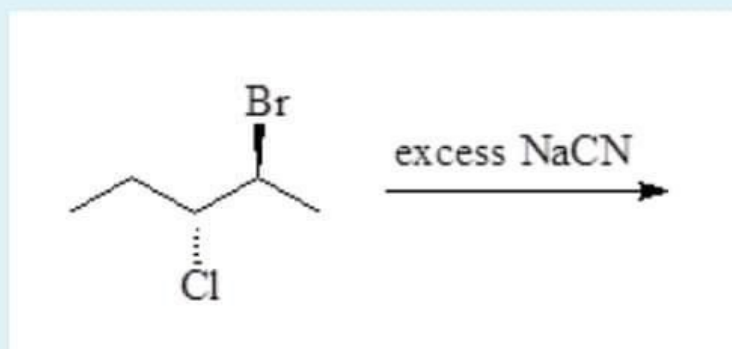


Select one:

- a ketone which is meso and optically inactive
- an acyclic carboxylic acid
- a racemic mixture of ketones which is optically inactive
- an aldehyde which is meso and optically active
- an optically active ketone

[Clear my choice](#)

What is the correct stereochemistry of the product if 2-bromo-3-chloropentane (shown below) reacted with excess NaCN and proceeds via S_N2 mechanism:



Select one:


- 2S, 3R
- 2R,3R
- 3R, 4S
- 2R, 3S

[Clear my choice](#)

Question **54**

Not yet answered

Marked out of 1.00

 Flag question

Ethers oxidized smoothly by the presence of oxygen and light to give:

Select one:

- aldehydes
- carboxylic acids
- Epoxides
- peroxides

[Clear my choice](#)

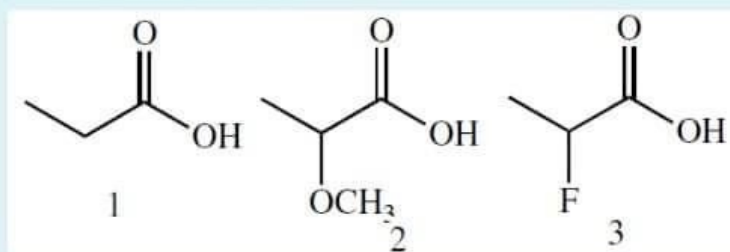
Question **55**

Not yet answered

Marked out of 1.00

Flag question

Rank the following according to their relative acidities



Select one:


- 2>3>1
- 2>1>3
- 3>1>2
- 3>2>1
- 1>2>3

[Clear my choice](#)

Question **58**

Answer saved

Marked out of 1.00

 Flag question

What is the order of reactivity of the following compounds in electrophilic aromatic substitution? (more reactive > less reactive).

I toluene

II nitrobenzene

III benzene

IV phenol

Select one:

- IV > I > III > II
- IV > III > II > I
- I > II > III > IV
- I > III > IV > II

[Clear my choice](#)

Question **60**

Not yet answered

Marked out of 1.00

🚩 Flag question

What is the major product of the following reaction?



Select one:

- alcohol
- alkene
- alkane
- ether

[Clear my choice](#)

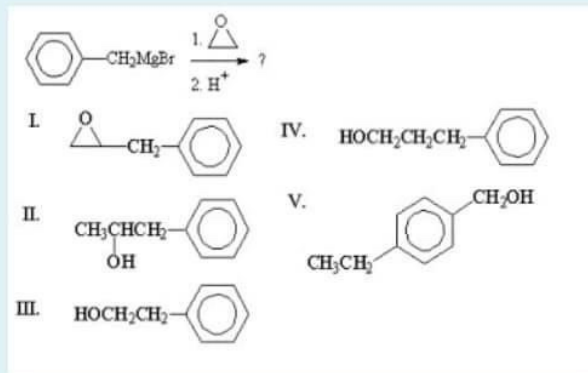
Question **51**

Not yet answered

Marked out of 1.00

Flag question

What is the product of the following reaction?



Select one:

- IV
- I
- II
- V
- III

[Clear my choice](#)