

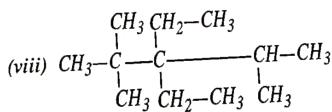
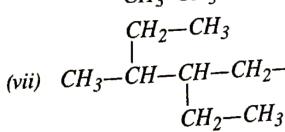
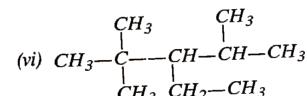
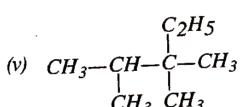
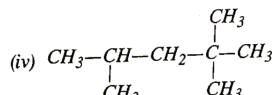
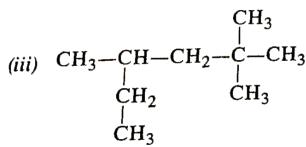
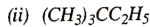
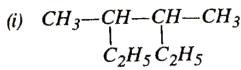
CHEMISTRY

BOOKS - S DINESH & CO CHEMISTRY (HINGLISH)

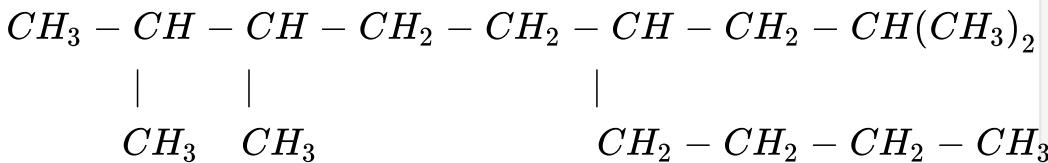
NOMENCLATURE OF ORGANIC COMPOUNDS

Example

1. Write the IUPAC of the following compounds :

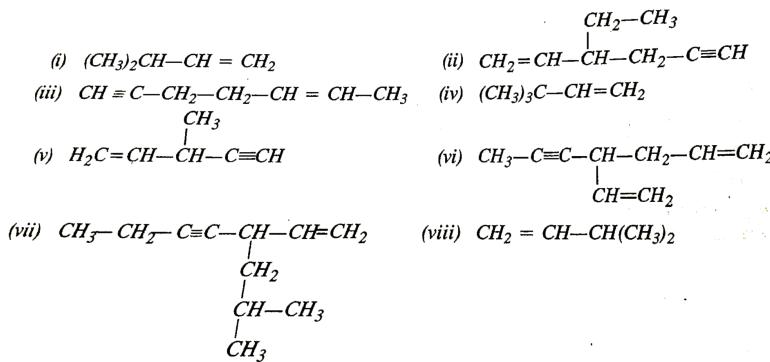


(ix)



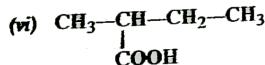
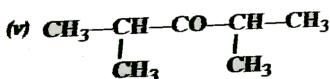
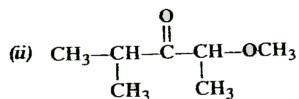
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2. Write the IUPAC of the following :



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3. Write the IUPAC names of :



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4. Draw the structures of the following compounds

(i) Hex-2-enoic acid

(ii) 2-chloro-2-methylbutan-1-ol

(iii) 5,5-Diethylnonan-3-ol

(iv) Propane-1,3-diamine

(v) 4-Nitropent-1-yne

(vi) But-2-ene-1,4-dioic acid

(vii) 4-Amino-2-ethylpent-2-enal

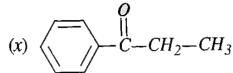
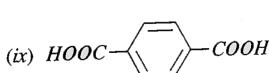
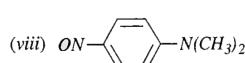
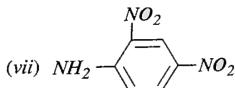
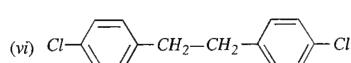
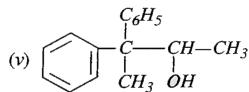
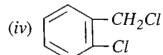
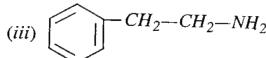
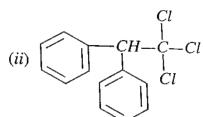
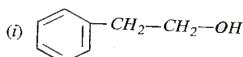
(viii) Ethyl-3-methoxy-4-nitrobutanoate

(ix) 5-(1-Methylethyl)-3-methyloctane

(x) Hex-4-yn-2-one

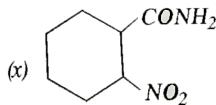
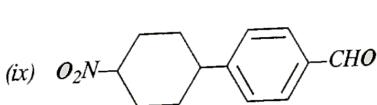
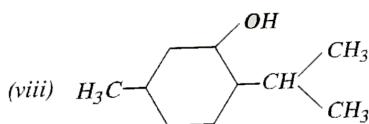
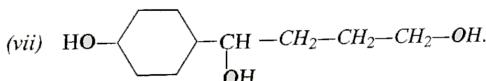
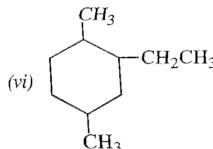
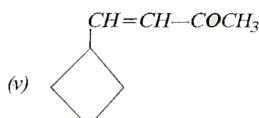
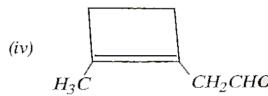
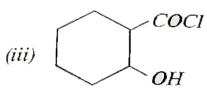
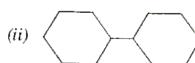
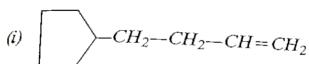
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5. Write the IUPAC names of the following compounds :



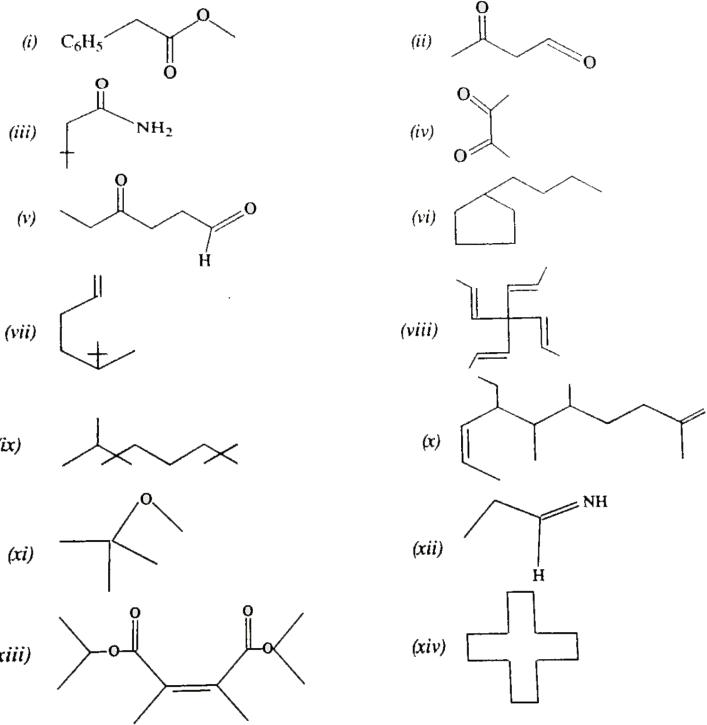
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6. Give the IUPAC names of the following :



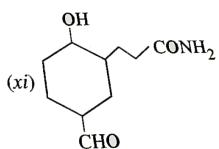
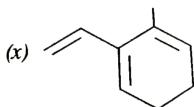
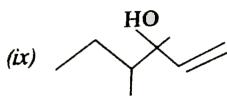
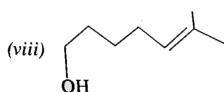
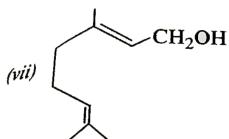
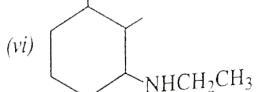
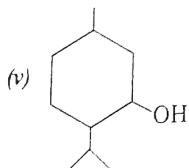
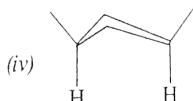
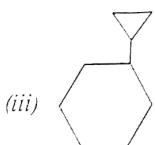
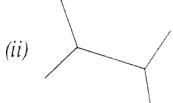
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7. Give the structural formula and IUPAC names of the following compounds :



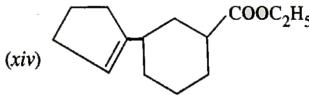
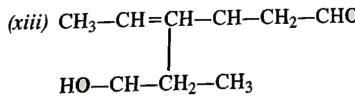
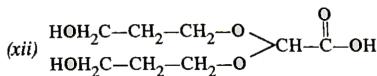
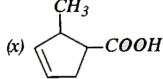
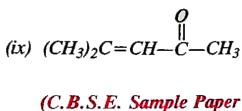
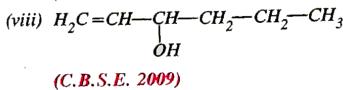
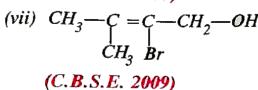
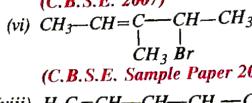
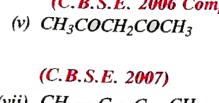
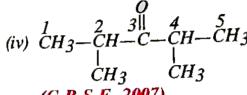
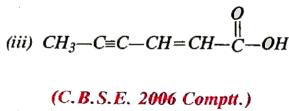
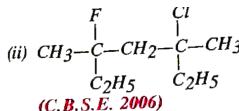
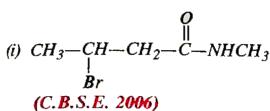
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8. Draw the formulae of the following compounds and write their IUPAC names :



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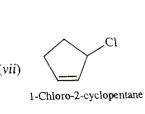
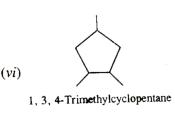
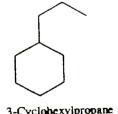
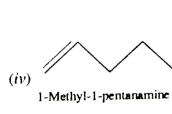
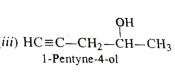
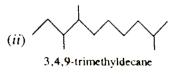
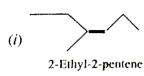
9. Write IUPAC names of the following compounds



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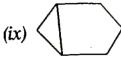
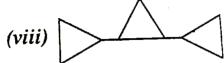
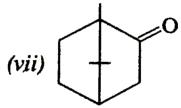
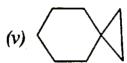
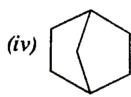
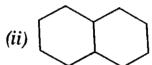
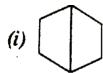
10. What is wrong with the names given for these compounds ?

Provide the correct name for each.



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11. Give the IUPAC names of the following :



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12. Give the structures of the hydrocarbons corresponding to the molecular formula C_8H_{12}

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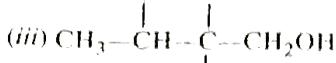
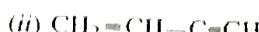
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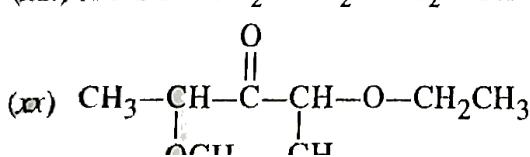
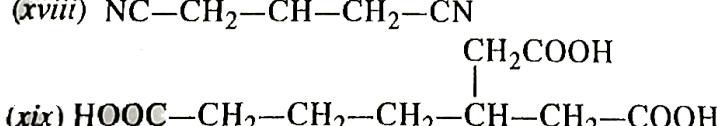
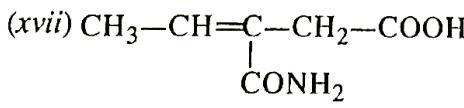
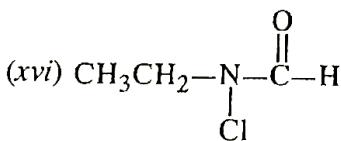
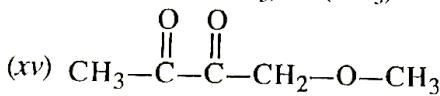
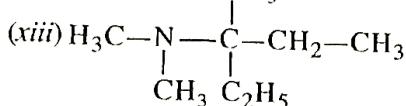
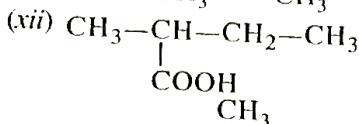
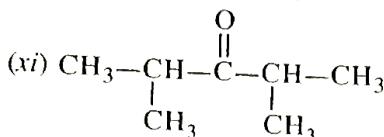
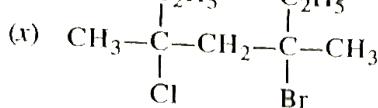
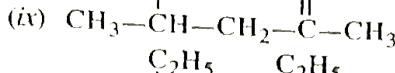
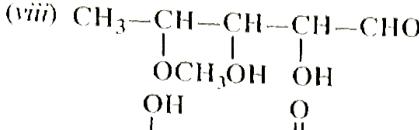
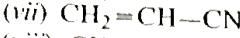
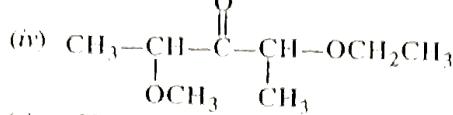
i. $C_3H_3Cl_3$, ii. C_3H_4O , iii. C_4H_5N is :

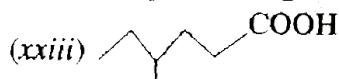
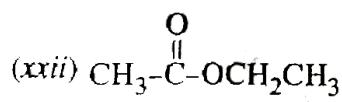
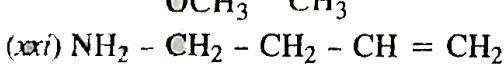
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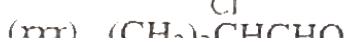
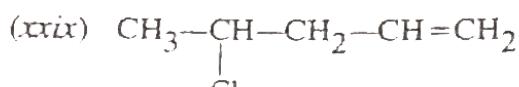
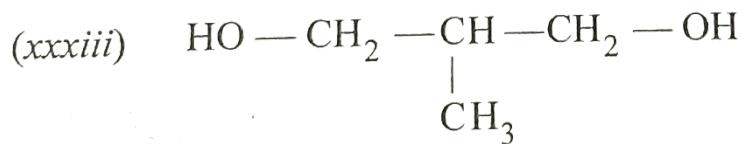
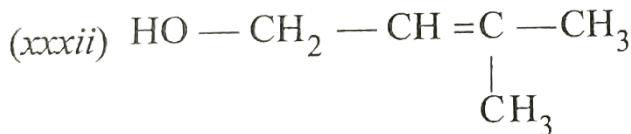
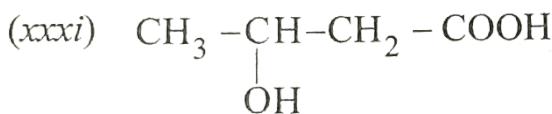
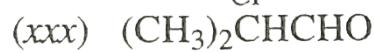
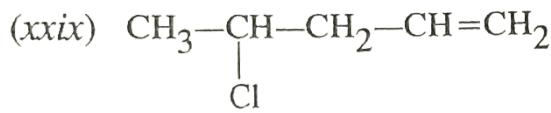
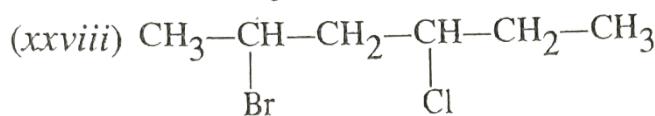
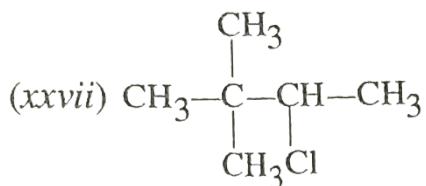
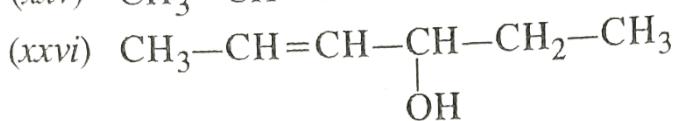
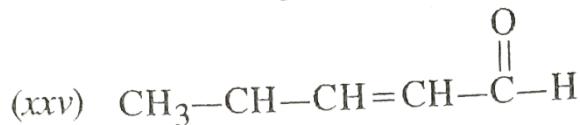
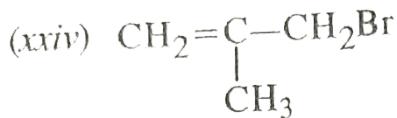
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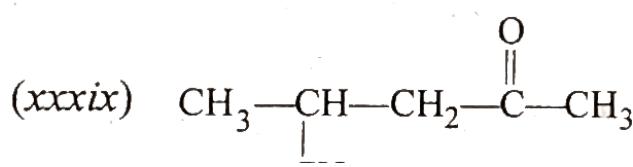
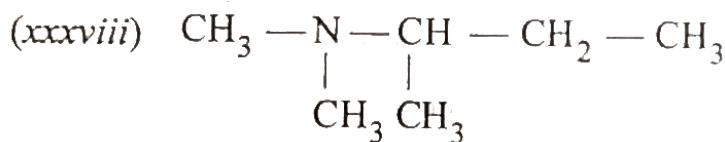
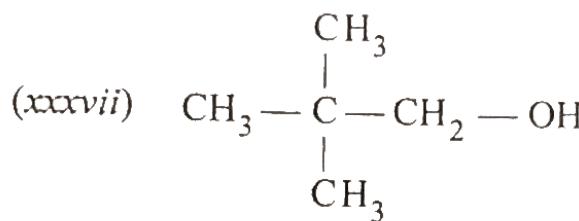
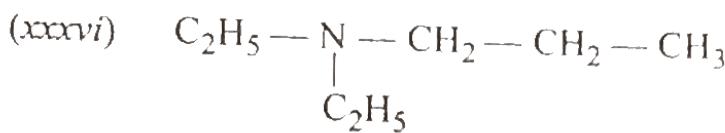
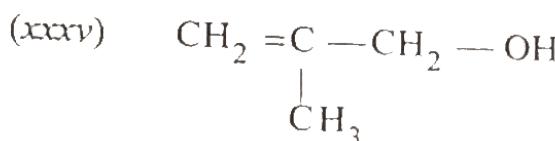
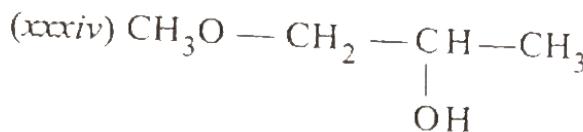
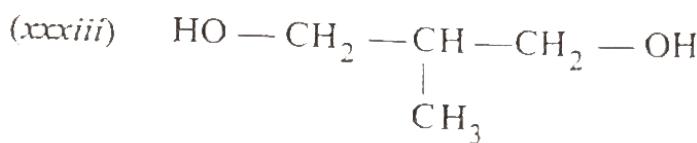
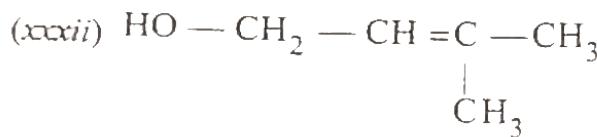
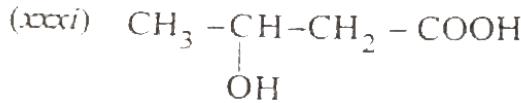
1. Write the IUPAC names of the following compounds :



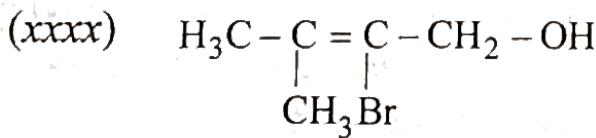








CH₃



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2. Draw the structures of the following compounds :

- (i) 4-Chloropent-2-ene
- (ii) Glyoxal
- (iii) Neohexane
- (iv) 2,3-Diethylbuta-1,3-diene
- (v) 4-Phenylbutanal
- (vi) 4,4-Dimethylpent-2-en-1-ol
- (vii) Tartaric acid
- (viii) Isoprene

(xi) 4-Hydroxy-2-methylpent-2-enoic acid

(x) 2-Ethyl-5-hydroxyhex-3-enal

(xi) 5-(1,2-Dimethylpropyl) nonane

(xii) 3-Oxopentanal

(xiv) 1-Phenypentan-1-one

(xv) 2-Methyl-3-ethoxypentane

(xvi) 1-Phenylpropan-2-ol

(xvii) 1-Phenylpropan-1-one

(xviii) N,N-Diethylbutan-1-amine

(xix) 3-Oxopentanal

(xx) 4-Chloropentan-2-one

(xxi) 2-Methylpropan-2-ol

(xxii) Hex-1-en-3-ol

(xxiii) p-Nitropropiophenone

(xxiv) Hexane-1,6-dioic acid

(xxv) 2-Aminotoluene

(xxvi) Neopentyl alcohol

(xxvii) 4,4-Dimethylpentan-2-ol

(xxviii) 1-Bromo-4-chlorobut-2-ene.



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3. Write the structural formulae of the following compounds :

(i) Picric acid

(ii) Cumene

(iii) Styrene

(iv) Phthalimide

(v) Hydroquinone

(vi) Pyrogallol

(vii) 1-Phenylpropanone

(viii) 3-Bromo-1-Phenylpropene

(ix) Anisole

(x) Benzophenone

(xi) Cinnamic acid

(x) Benzophenone

(xi) Cinnamic acid

(xii) p-Toluidene

(xiii) 2,6-Dimethylphenol

(xiv) p-Methoxybenzaldehyde.



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4. Write the IUPAC name by using systematic names for alkyl groups :

(i) 4-isopropyldecane

(ii) 5-t-butyldecane

(iii) 4-t-butyl-2,6-dimethyldecane

(iv) trans-butyl-3-isopropyl cyclobutane

(v) 4-isopropyl-2-octene

(vi) 4-tert-butyl-2,5-dimethyloctane

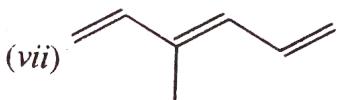
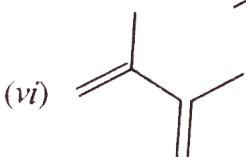
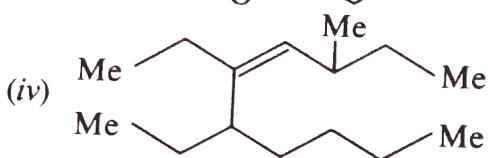
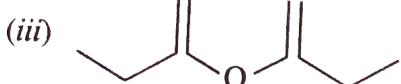
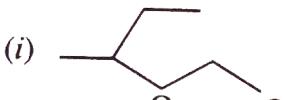
(vii) 4-methyl-4-isopropenyl-1-cyclohexene

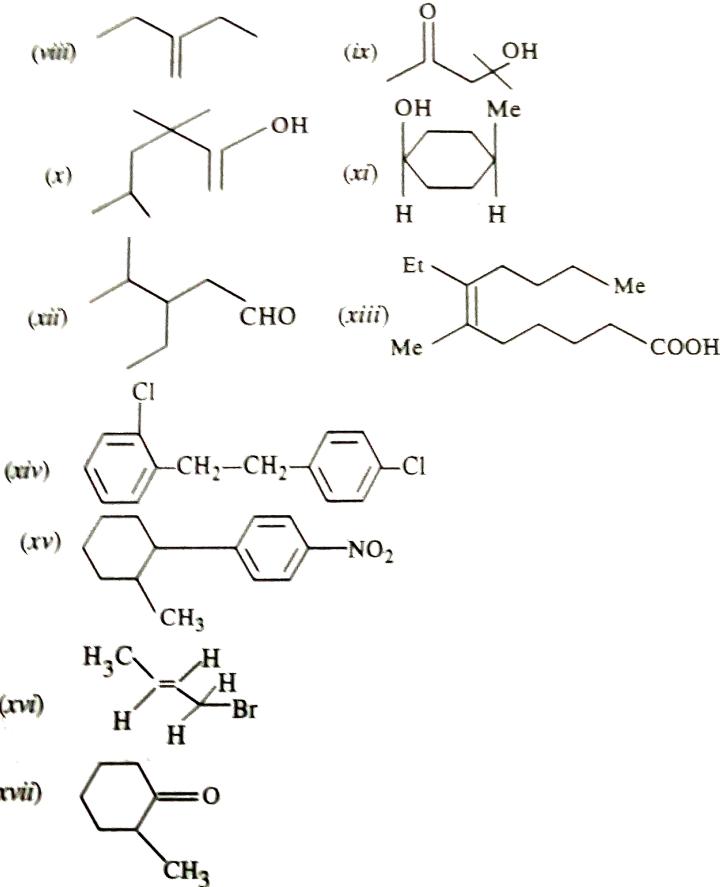
(viii) 3-isobutyl 1,4-hexadiyne.



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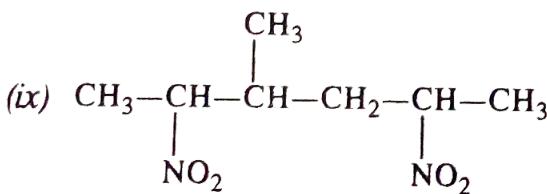
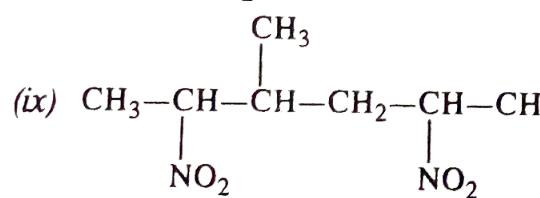
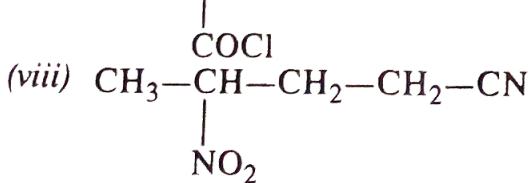
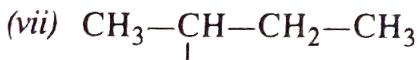
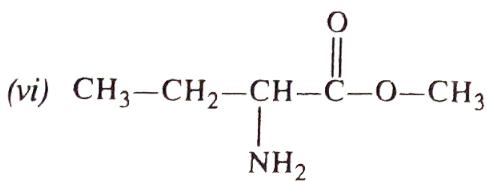
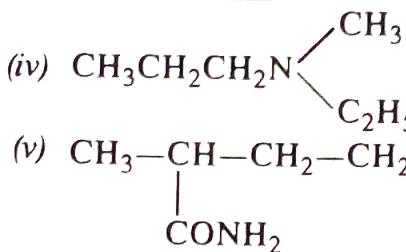
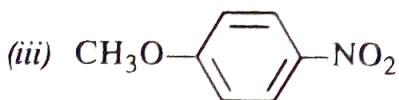
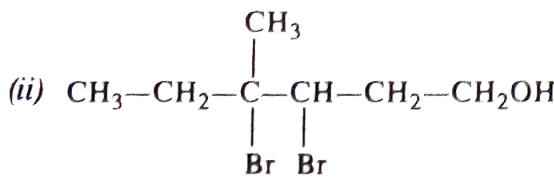
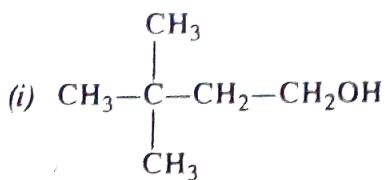
5. Write the name of the following compounds :

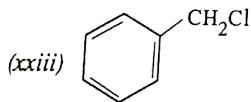
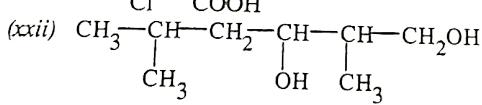
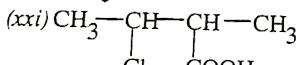
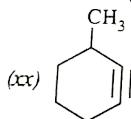
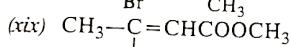
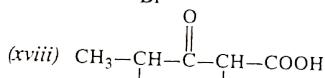
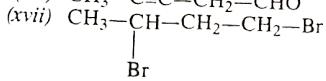
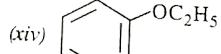
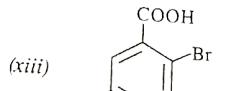
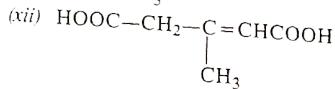
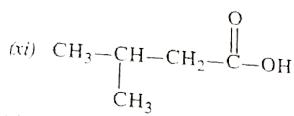
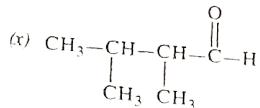


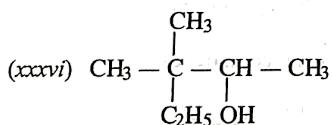
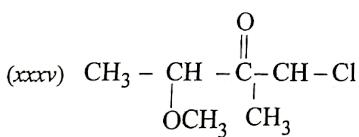
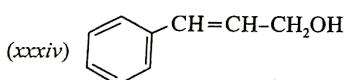
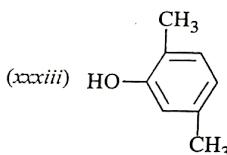
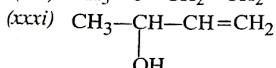
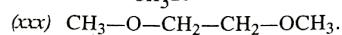
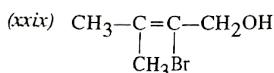
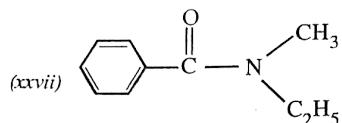
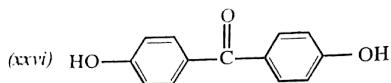
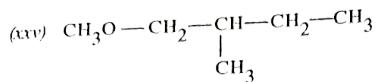
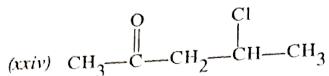


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6. Write the IUPAC names of the following compounds :







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Multiple Choice

1. The IUPAC name of the compound $CH_2 = CH - CH(CH_3)_2$

is:

A. 1,1-Dimethylprop-2-ene

B. 3-Methylbut-1-ene

C. 2-Vinylpropane

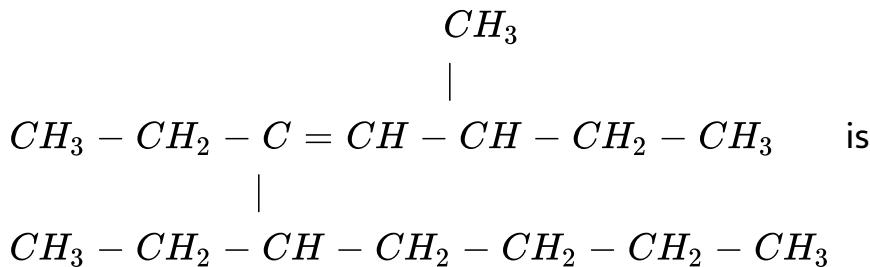
D. 1-Isopropylethylene

Answer: B



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2. The correct IUPAC name of the compound



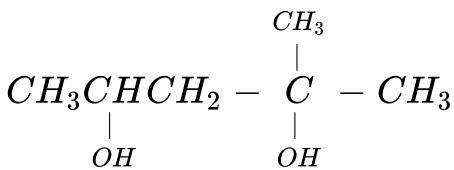
- A. 5,6-Diethyl-8-methyldec-6-ene
- B. 5,6-Diethyl-3-methyldec-4-ene
- C. 6-Butyl-5-ethyl-3-methyldec-4-ene
- D. 2,4,5-Triethylnon-3-ene

Answer: B



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3. The IUPAC name of the compound



is

- A. 1,1-Dimethylbutane-1,3-diol
- B. 4-Methylpentane-2,4-diol
- C. 2-Methylpentane-2,4-diol
- D. 1,3,-Trimethylpropane-1,3-diol

Answer: C



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4. The IUPAC name of $CH_3C \equiv CCH(CH_3)_2$ is

A. 4-Methylpent-2-yne

B. 4,4-Dimethylbut-2-yne

C. Methyl isopropyl acetylene

D. 2-Methylpent-4-yne

Answer: A



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5. The structure of 4-Methylpent-2-en-1-ol is

A. $CH_3CH_2CH = CHCH_2OH$

B. $(CH_3)_2C = CHCH_2CH_2OH$

C. $(CH_3)_2CHCH = CHCH_2OH$

D. $CH_3CH(OH)CH - CH = C(CH_3)_2$

Answer: C



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6. The *IUPAC* name of $(CH_3)_3C - CH = CH_2$ is:

- A. 2,2-Dimethylbut-3-ene
- B. 2,2-Dimethylpent-4-ene
- C. 3,3-Dimethylbut-1-ene
- D. Hex-1-ene

Answer: C



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7. What is the IUPAC name of $H - \overset{\underset{\parallel}{O}}{C} - CH_2 - CH_2 - OCH_3$

A. 2-Formylmethoxyethane

B. Methoxypropanal

C. 2-Methoxypropanal

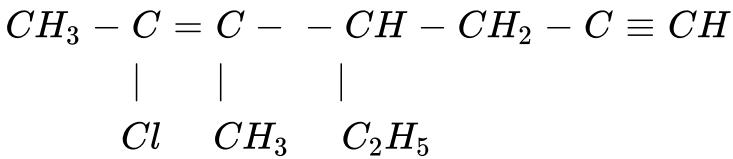
D. 3-Methoxypropanal

Answer: D



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8. The IUPAC name of



A. 6-Chloro-4-ethyl-5-methylhept-5-en-1-yne

B. 6-Chloro-4-ethyl-5-methylhept-1-yn-5-ene

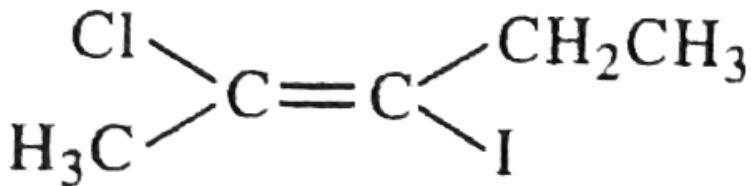
C. 2-Chloro-4-ethyl-3-methylhept-2-ene-6-yne

D. 2-Chloro-4-ethyl-3-methylhept-6-yn-2-ene

Answer: A

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9. The IUPAC name of the compound



A. trans-2-chloro-3-iodopent-2-ene

B. cis-2-chloro-3-iodopent-2-ene

C. trans-3-iodo-4-chloropent-3-ene

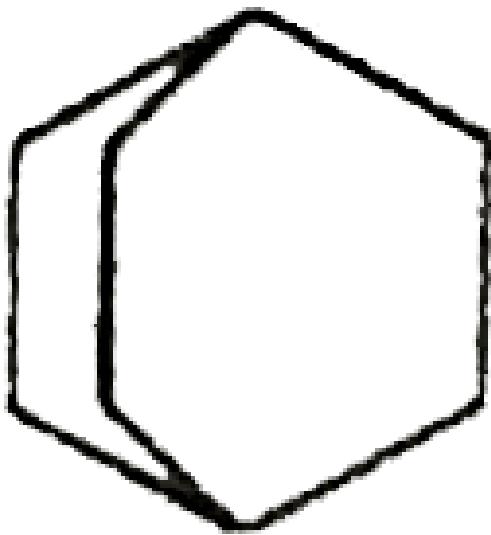
D. cis-3-iodo-4-chloropent-3-ene

Answer: A



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10. The compound



is known by

which of the following name ?

A. Bicyclo [2.2.2] octane

B. Bicyclo [2.2.1] octane

C. Bicyclo [1.2.1] octane

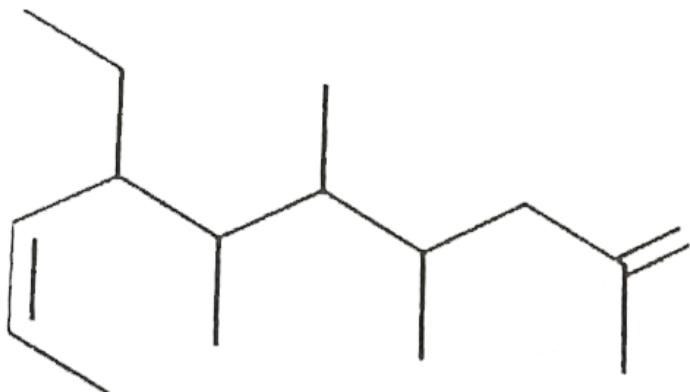
D. Bicyclo [1.1.1]octane

Answer: A



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11. The IUPAC name of compound



A. 4-Ethyl-5,6,7,9-tetramethyldeca-2,9-diene

B. 7-Ethyl-2,4,5,6-tetramethyldeca-1,8-diene

C. 7-Ethyl-2,4,5,6-tetramethyldeca-1,7-diene

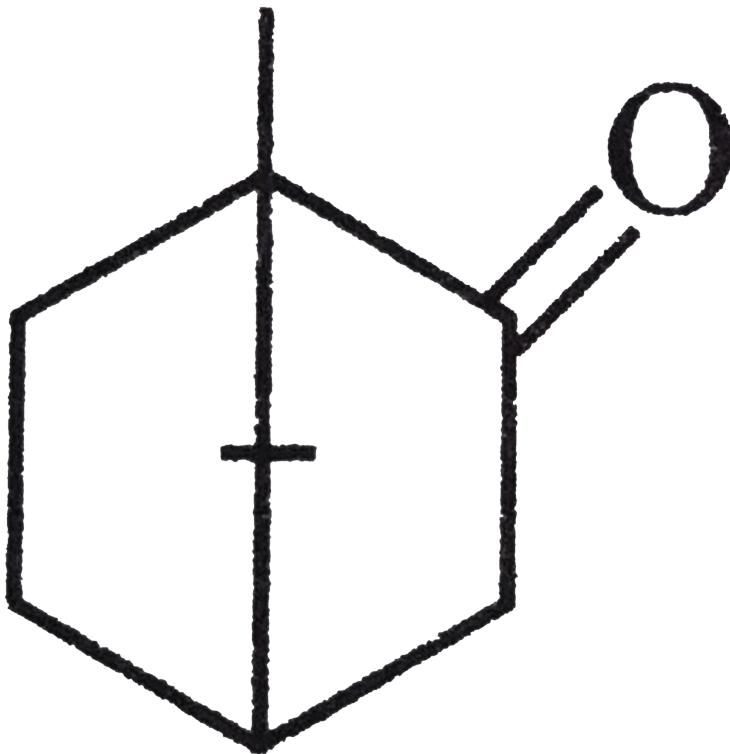
D. 7-(1-Propenyl)-2,3,4,5-tetramethylnon-1-ene

Answer: B



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12. The *IUPAC* name of the well known terpene camphor having the structure

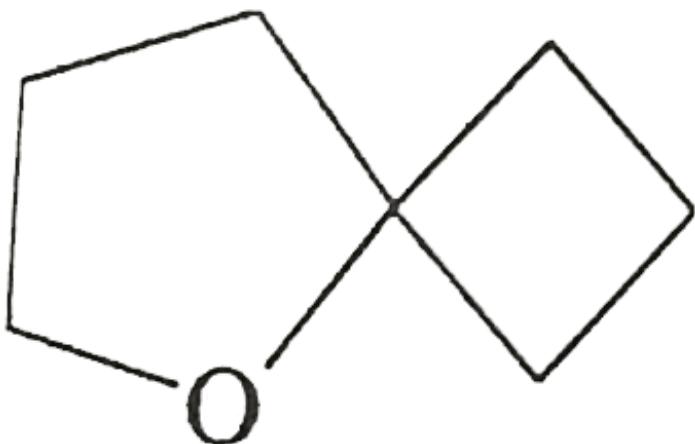


is

- A. 6-Oxo-1,2,2-Trimethylbicyclo [2,2,1] heptane
- B. 1,7,7-Trimethylbicyclo [2.2.1] heptan-2-one
- C. 1,5,5, Trimethylbicyclo [2.1.1] heptan-2-one
- D. 1,7,7-Trimethylbicyclo [2.1.2] heptan-2-one

Answer: B

13. The IUPAC name of the spiro compound



A. 5-Oxaspiro [3,4] octane

B. 1-Oxaspiro [4,3] octane

C. 5-Oxospiro [3,4] octane

D. 1-Oxaspiro [3,4] octane

Answer: A

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14. The IUPAC name of alkane



is

- A. 2,2,6,6,7-Pentamethyloctane
- B. 2,3,3,7,7-Pentamethylocatane
- C. 5-tertiary-2-isopropyl-2-methylpentane
- D. 2-isopropyl-2-6,6-trimethylheptane

Answer: A

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15. The correct IUPAC name of compound with molecular formula $(CH_3)_3C - CH_3$ is

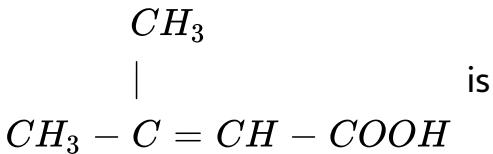
- A. Pentane
- B. 1,1,1-Trimethylethane
- C. 2,2-Dimethylpropane
- D. Neopentane

Answer: C



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16. The IUPAC name for the formula



A. 2-Methylbut-2-enoic acid

B. 3-Methylbut-3-enoic acid

C. 3-Methylbut-2-enoic acid

D. 2-Methylbut-3-enoic acid

Answer: C



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17. The IUPAC name for

$CH_3CH_2CH_2CH(CH = CH_2)CH_2CH_2CH_3$ is

A. 4-Ethenylheptane

B. 3-n-propylhex-1-ene

C. 3-Ethenylheptane

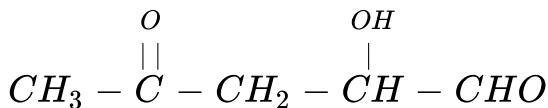
D. None of these

Answer: B



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18. The *IUPAC* name of



is

A. 5-Oxo-4-hydroxypentan-2-one

B. 4-Hydroxy-5-al-2-pentanone

C. 2-Hydroxy-4-oxopentanal

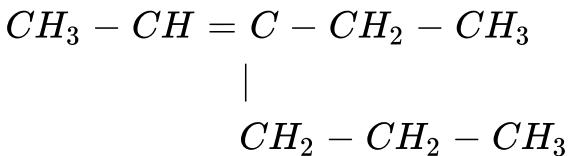
D. 1-al-4-oxo-pentan-2-ol

Answer: C



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19. The IUPAC name of compound



A. 3-Propylhex-3-ene

B. 3-Propylhex-2-ene

C. 3-Ethylhex-2-ene

D. 4-Ethylhex-4-ene

Answer: C



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20. The *IUPAC* name of



is

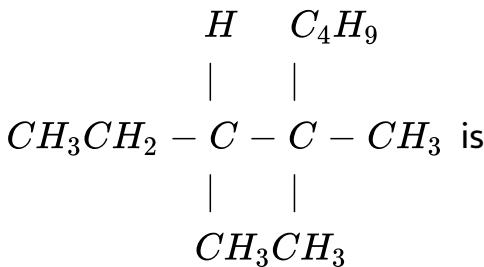
- A. 4-Hydroxy-1-methylpentanal
- B. 4-Hydroxy-2-methylpentanal
- C. 2-Hydroxy-4-methylpentanal
- D. 2-Hydroxy-2-methylpentanal

Answer: B



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21. The IUPAC name of following compound

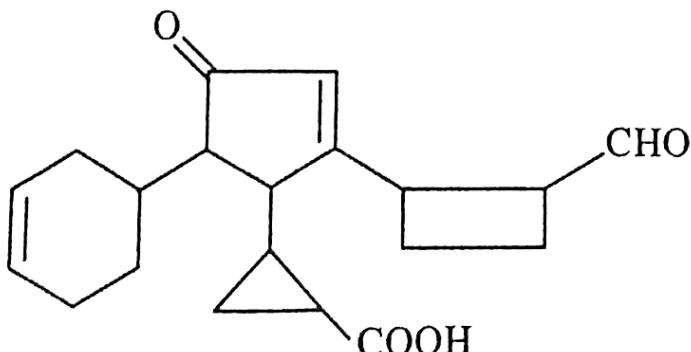


- A. 3,4,4-Trimethylheptane
- B. 3,4,4-Trimethyloctane
- C. 2-Butyl2-methyl-3-ethylbutane
- D. 2-Ethyl-3,3-dimethylheptane

Answer: B



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22.

In the above compound, which ring must be considered as a parent chain for IUPAC naming ?

A. 3-membered

B. 4-membered

C. 5-membered

D. 6-membered

Answer: C



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23. The IUPAC name of acryaldehyde is

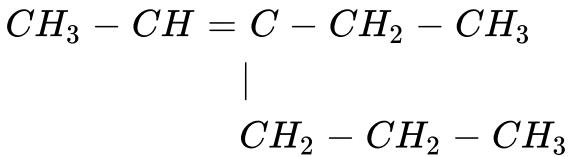
- A. Prop-2-enal
- B. Propenylaldehyde
- C. But-2-enal
- D. Propenal

Answer: A



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24. The IUPAC name name of compound



- A. 3-Ethylhex-2-ene

B. 4-Ethylhex-2-ene

C. 4-Ethylhex-4-ene

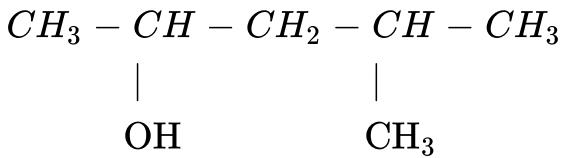
D. 3-Propylhex-2-ene

Answer: A



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25. The IUPAC name of the compound



A. 3-Methylpenten-2-ol

B. 2-Methylpentan-2-ol

C. 4,4-Dimethylbutan-2-ol

D. 4-Methylpentan-2-ol

Answer: D



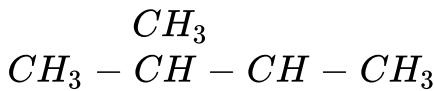
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26. Which of the following compound has wrong IUPAC name?

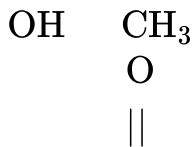
A. $CH_3CH_2CH_2COOCH_2CH_3$: Ethybutanoate



B. | : 3-Methybutanal



C. | | : 2-Methybutan-3-ol



D. $CH_3 - CH - C - CH_2CH_3$



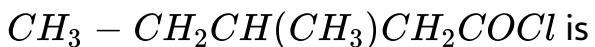
2-Methylpentan-3-one

Answer: C



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27. The IUPAC name of compound



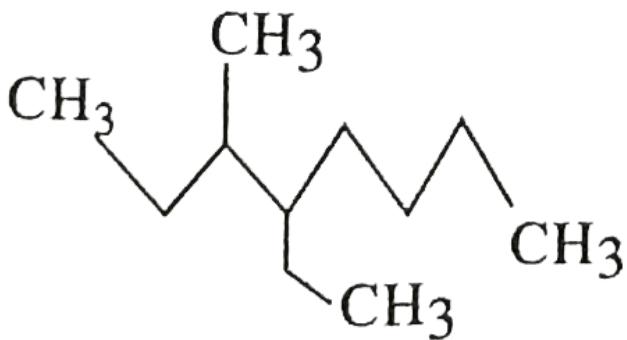
- A. 3-Methylpentanoyl choride
- B. 3-Methylbutanoyl chloride
- C. 1-Chloro-3-methylpentanol
- D. None of these

Answer: A



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28. The correct IUPAC name of the compound given below is :



A. 4-Ethyl-3-methyloctane

B. 3-Methyl-4-ethyloctane

C. 2,3-Dimethylheptane

D. 5-Ethyl-6-methyloctane

Answer: A



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29. The *IUPAC* name of $CH_3COCH(CH_3)_2$ is

A. 4-Methyl isopropyl ketone

B. 3-Methybutan-2-one

C. Isopropyl methyl ketone

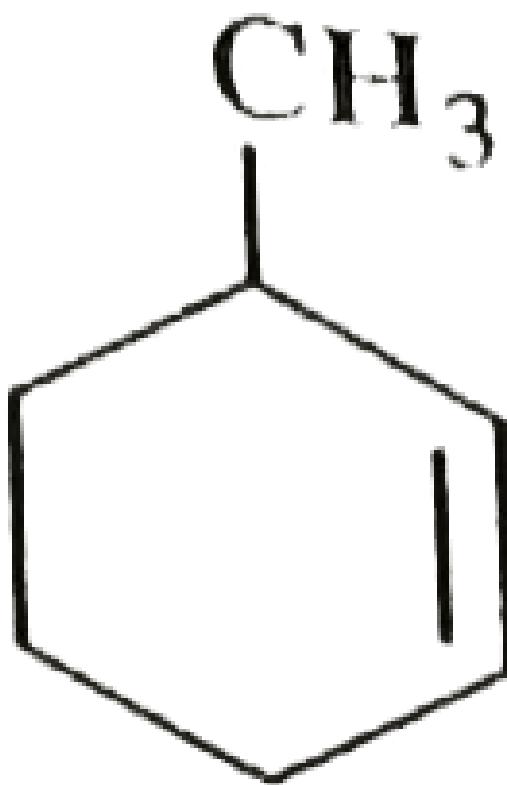
D. 2-Methylbutan-3-one

Answer: B



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30. The IUPAC name of



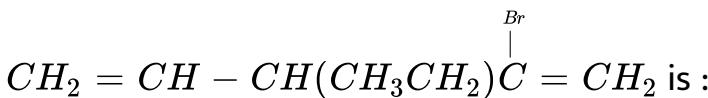
- A. 3-Methylcyclohexene
- B. 1-Methycyclohex-2-ene
- C. 6-Methylcyclohexene
- D. 1-Methylcyclohex-5-ene

Answer: A



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31. The IUPAC name of



A. 4 Bromo-3-ethyl-1, 4-pentadiene

B. 2-Bromo-3-ethyl-1,4-pentadiene

C. 2-Bromo-3-ethyl-1,5-pentadiene

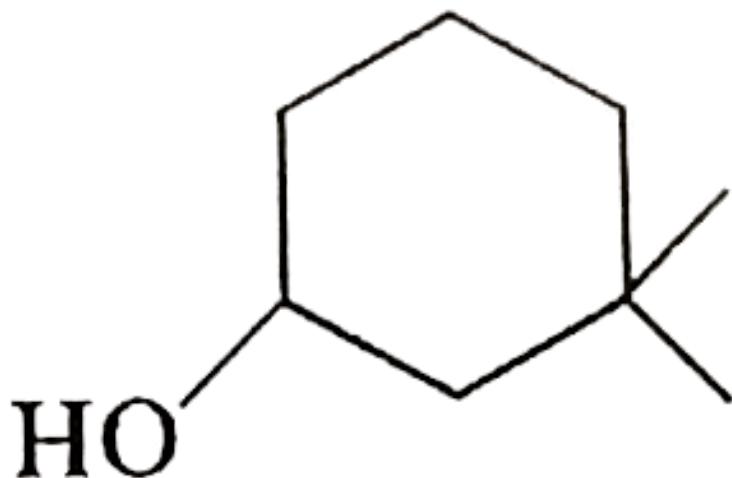
D. None of these

Answer: B



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32. The IUPAC name of



- A. 3,3-Dimethyl-1-hydroxycyclohexane
- B. 1,1-Dimethyl-3-hydroxycyclohexane
- C. 3,3-Dimethyl-1-cyclohexanol
- D. 1,1-Dimethyl-3-cyclohexanol

Answer: C



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33. The IUPAC name of $(CH_3CH_2CO)_2O$ is

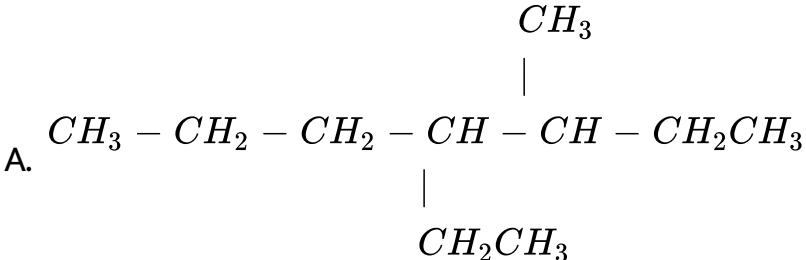
- A. Propionic anhydride
- B. Dipropanoic acid
- C. Ethoxypropanoic acid
- D. Propanoic anhydride

Answer: D

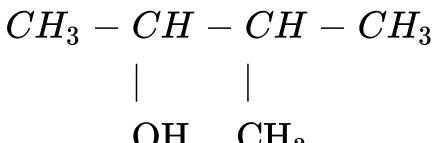


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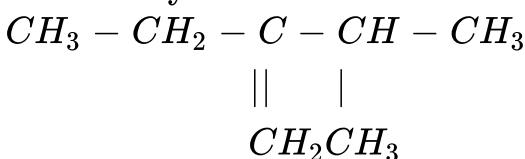
34. Names of some compounds are given. Which one is not correct according to IUPAC system ?



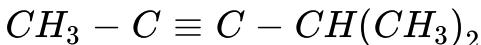
4-Ethyl-3-methylheptane



3-Methylbutan-2-ol



2-Ethyl-3-methylbut-1-ene



D.

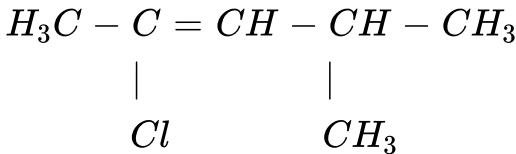
4-Methylpent-2-yne

Answer: A



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35. The correct IUPAC name of the compound



A. 2-Chloro-4-methylpent-2-ene

B. 4-Chloro-2-methylpent-3-ene

C. 4-Methyl-2-chloropent-2-ene

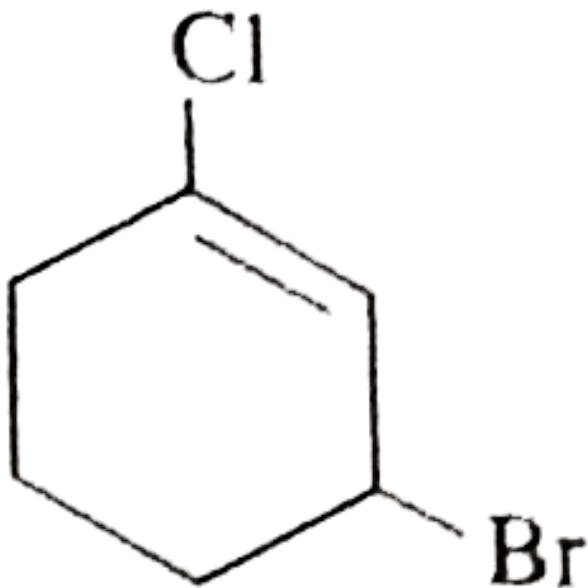
D. 2-Chloro-4-dimethylbut-2-ene

Answer: A



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36. The IUPAC name of the compound given below is :

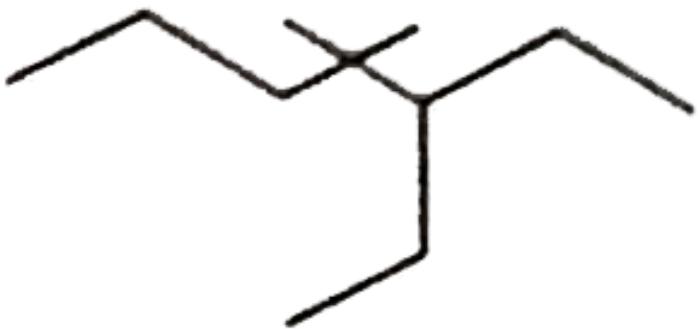


- A. 2-Bromo-6-chlorocyclohex-1-ene
- B. 6-Bromo-2-chlorocyclohexene
- C. 3-Bromo-1-chlorocyclohexene
- D. 1-Bromo-3-chlorocyclohexene

Answer: C



37. The IUPAC name of



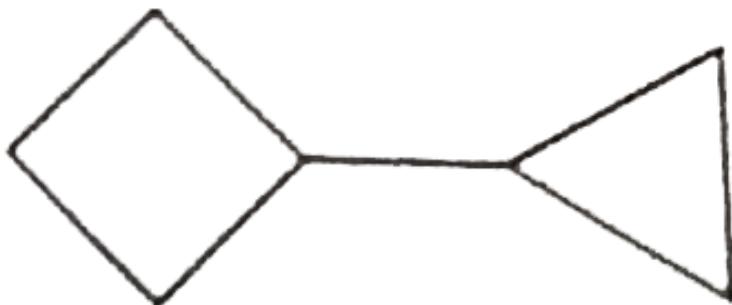
is

- A. 3-Ethyl-4,4-dimethylheptane
- B. 1,1-Diethyl-2,2-dimethylpentane
- C. 4,4-Dimethyl-5,5-diethylpentane
- D. 5,5-Diethyl-4,4-diemethylpentane

Answer: A



38. The correct IUPAC name of



is

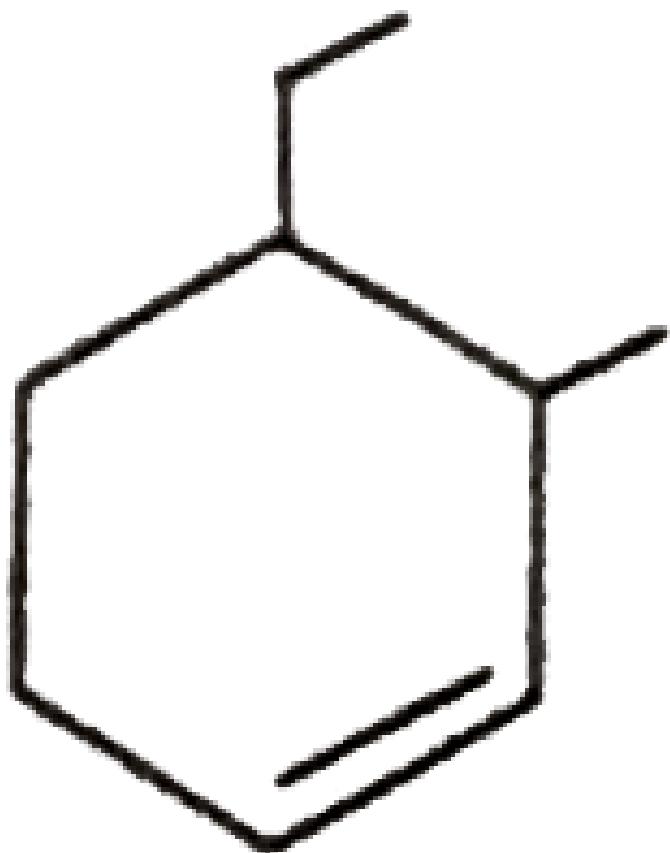
- A. 1-cyclopropylcyclobutane
- B. 1,1-Dicyclobutane
- C. 1-Cyclobutan-1-cyclopropane
- D. None of the above

Answer: A



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39. The IUPAC name of the given compound



A. 1-Ethyl-2-methylcyclohexene

B. 2-Methyl-1-ethycyclohexene

C. 3-Ethyl-2-methylcyclohexene

D. 4-Ethyl-3-methylcyclohexene

Answer: D

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40. The correct decreasing order of priority for the functional groups of organic compounds in the IUPAC system of nomenclature is

A. $-CONH_2$, $-CHO$, $-SO_3H$, $-COOH$

B. $-COOH$, $-SO_3H$, $-CONH_2$, $-CHO$

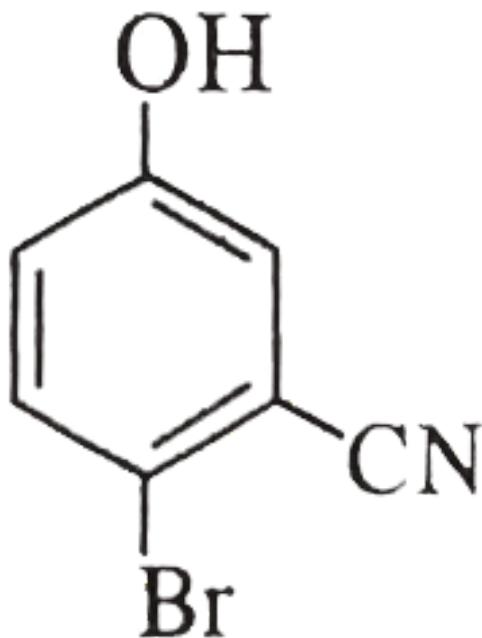
C. $-SO_3H$, $-COOH$, $-CONH_2$, $-CHO$

D. $-CHO$, $-COOH$, $-SO_3H$, $-CONH_2$

Answer: B

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41. The IUPAC name of the following compound is :



- A. 4-Bromo-3-cyanophenol
- B. 2-Bromo-5-hydroxybenzonitrile

C. 2-Cyano-4-hydroxybromobenzene

D. 6-Bromo-4-hydroxybenzonitrile

Answer: B



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42. The *IUPAC* name of the compound having the formula $CH \equiv C - CH = CH_2$ is

A. 1-Butyne-3-ene

B. But-1-yn-3-ene

C. But-1-en-3-yne

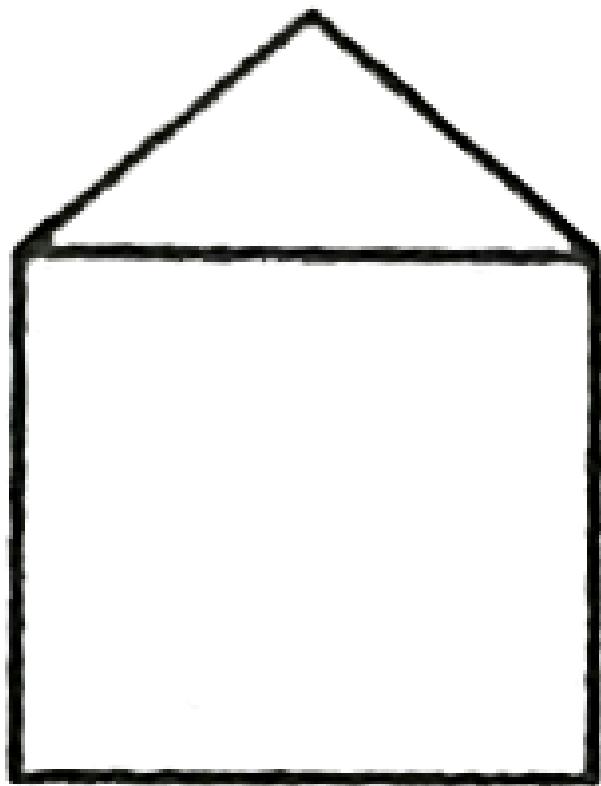
D. 3-Buten-1-yne

Answer: C



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43. The IUPAC name of



- A. bicyclo (2,1,0) pentane

B. 1,2-Cyclopropylcyclohexane

C. 1,2-methylenecyclobutane

D. Cyclopentan-(4,3)-annulene

Answer: A



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44. Which is a correct name according to IUPAC system ?

A. 2,3-Diemthylhexane

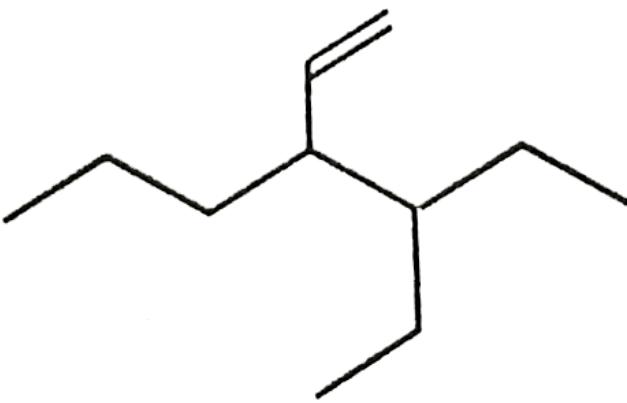
B. 3-Ethyl-2-methylpentane

C. 3,3-Dimethylpentane

D. 2-Ethyl-2-methylpentane

Answer: B

45. The correct IUPAC name of the compound is :



A. 4-Ethyl-3-propylhex-1-ene

B. 3-Ethyl-4-ethenylheptane

C. 3-Ethyl-4-propylhex-5-ene

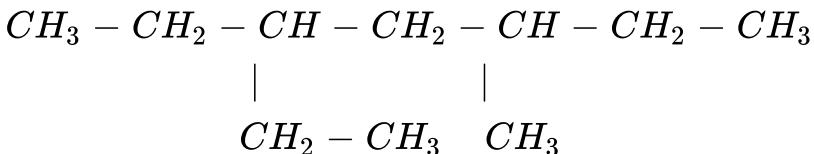
D. 3-(1-ethylpropyl)hex-1-ene

Answer: A



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46. The IUPAC name of the following compound is :



- A. 3-Ethyl-5-methylheptane
- B. 5-Methyl-3-ethylheptane
- C. 3,5-Diethylhexane
- D. 1,1-Diethyl-3-methylpentane

Answer: A



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47. The IUPAC name of $CH_3CH_2OCH(CH_3)_2$ is :

A. isopropoxyethane

B. 2-methoxybutane

C. 1-methyl-1-methoxyethane

D. 2-Ethoxypropane

Answer: D



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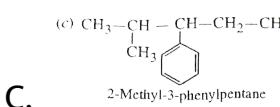
48. Which nomenclature is not correct according to IUPAC system ?

A. $\text{Br} - \text{CH}_2 - \text{CH} = \text{CH}_2$
1-Bromoprop-2-ene

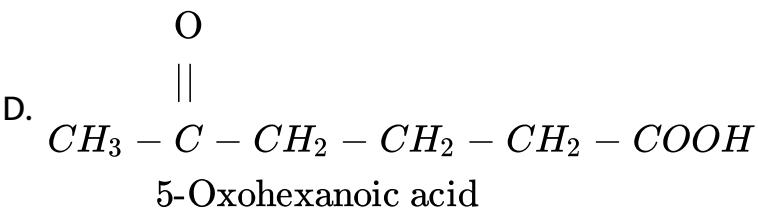


B. $\text{CH}_3 - \text{CH}_2 - \text{C} - \text{CH}_2 - \text{CH} - \text{CH}_3$
| |
Br CH₃

4-Bromo-2,4-dimethylhexane



C.

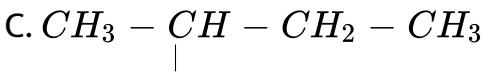
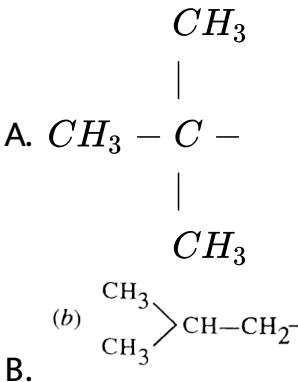


Answer: A



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49. The structure of isobutyl group in an organic compound is :

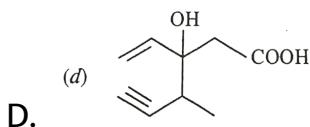
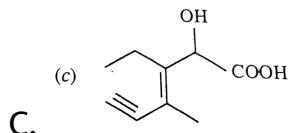
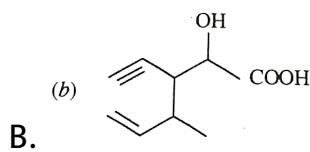
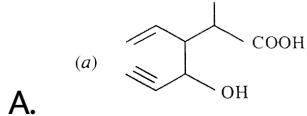


D. $CH_3 - CH_2 - CH_2 - CH_2 -$

Answer: B

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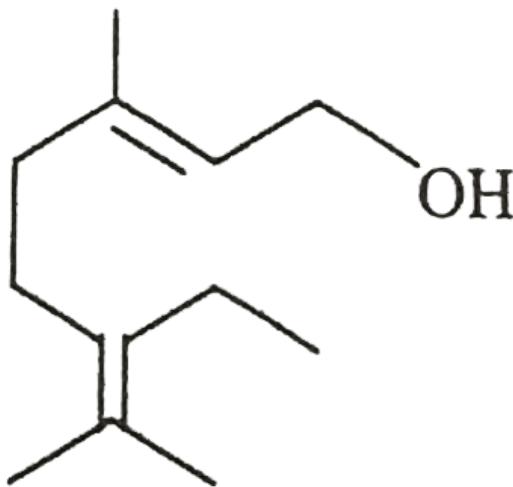
50. Structure of the compound whose *IUPAC* name is 3 – ethyl – 2 – hydroxy – 4 – methylhex – 3 – en – 5 – ynoic acid is



Answer: C

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51. The IUPAC name of the following compound is



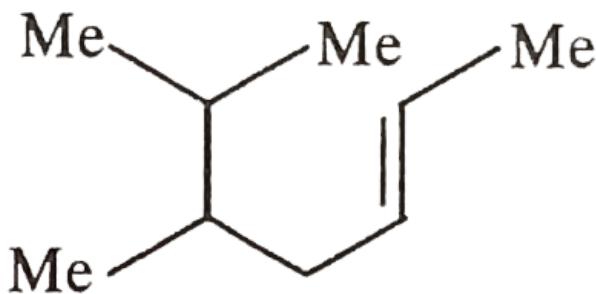
- A. 3-ethyl-2,6-dimethyloct-2,6-dien-1-ol
- B. 6-ethyl-3-methyl-6-propyloct-2-en-1-ol
- C. 6-ethyl-3,7-dimethyloct-2,6-dien-1-ol

D. 3-ethyl-5,8-dimethyoct-3,7-dien-1-ol

Answer: C

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52. The IUPAC name of the following compound is :



A. 5,6-dimethylhept-2-ene

B. 2,3-dimethylhept-5-ene

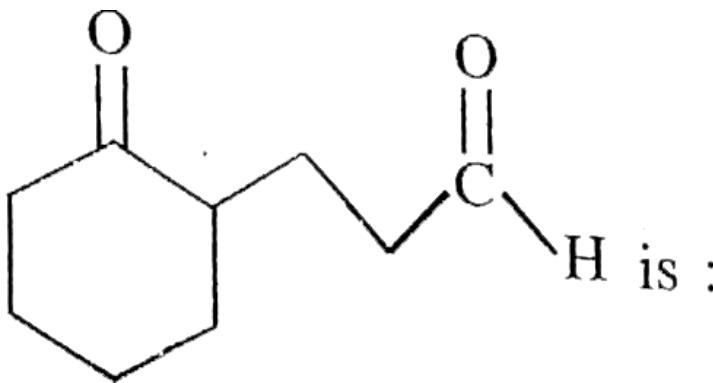
C. 5,6-dimethylhept-3-ene

D. 5-Isopropylhex-2-ene

Answer: A

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53. The IUPAC name of



is

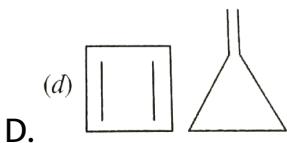
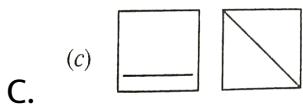
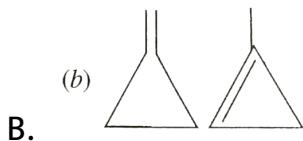
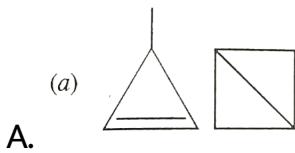
- A. Cyclohexanone-2-propanal
- B. 2-Formyl ethylcyclohexanone
- C. 3-(2-oxocyclohexyl) propanal
- D. Formyl cyclohexanone

Answer: C



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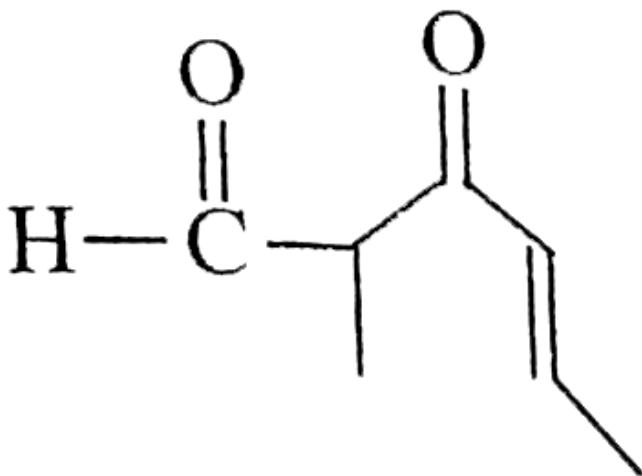
54. Which pair does not represent a cyclic compound of the formula C_4H_6



Answer: D

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55. The IUPAC name of compound is

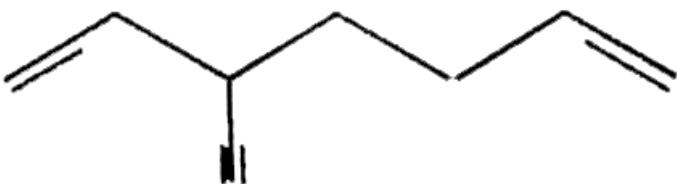


- A. 3-keto-2-methylhex-4-enal
- B. 5-formylhex-2-en-3-one
- C. 5-methyl-4-oxohex-2-en-5-al
- D. 3-keto-2-methylhex-5-enal

Answer: A

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56. What is the IUPAC nomenclature of the given compound ?



- A. 5-Ethynyl-hepta-1,6-diene
- B. 3-Ethynyl-hepta-1,6-diene
- C. 3-Vinyl hept-6-en-1-yne
- D. 5-Vinyl hept-1-en-6-yne

Answer: B

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1. Write the *IUPAC* name of the compound (*A*) in which the molar ratios of *C*, *H*, and *O* of equal having a molecular mass of 58

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2. A hydrocarbon of molecular weight 72g mol^{-1} has a 2-methyl group. What is the IUPAC name? Also draw its bond-line structure?

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3. (a) Sketch the carbon skeleton of 3-ethyl-2,5-hexadiene and point out the error in the IUPAC name

(b) Give the correct name of the compound.



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4. Write the structural formula of a compound of molecular formula $C_4H_8Cl_2$ in which

- (a) all the carbon atoms are involved in $-CH_2$ groups
- (b) none of the carbon atoms is involved in $-CH_2$ group.



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5. Write the structural formulae of the following compounds

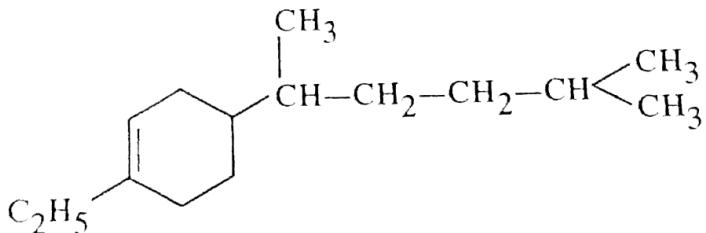
along with the bond line notation

- (i) 4-Formyl-3-methylbutanoic acid
- (ii) Methyl-2-ethylbutanoate
- (iii) 6-Ethyl-5-methylec-5-enoic acid



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6. The IUPAC name of the given compound will be :



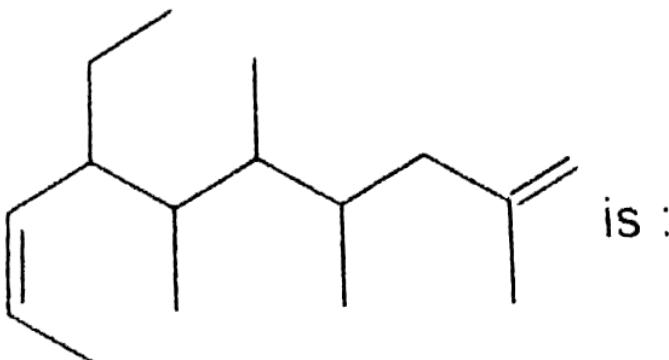
- A. 1-ethyl-4-(5-methylhexyl)cyclohex-1-ene
- B. 1-ethyl-4(1,4-dimethylpentyl) cyclohex-1-ene
- C. 5-(1,4-dimethylpentyl)-2-ethylcyclohex-1-ene
- D. 4-(1,4-dimethylpentyl)-1-ethylcyclohex-1-ene

Answer: B



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7. The IUPAC name of the compound



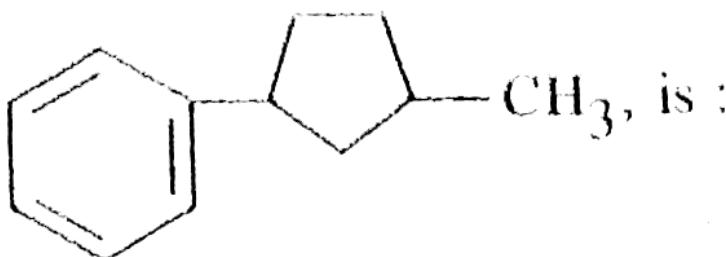
- A. 2,4,5,6-tetramethyl-7-ethyldeca-1,7-diene
- B. 7-Ethyl-2,4,5,6-tetramethyldeca-1,8-diene
- C. 4-ethyl-5,6,7,9-tetramethyl deca-2,9-diene
- D. None of the above

Answer: B



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8. The IUPAC name of the compound



is

A. 3-(3-methylcyclopentyl) benzene

B. 1-(3-methylcyclopentyl) benzene

C. 2-(2-methylcyclopentyl) benzene

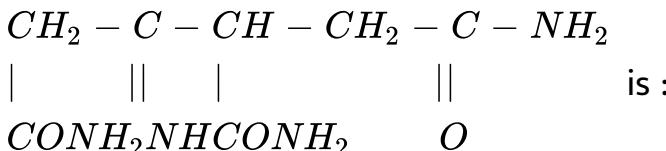
D. None of the above

Answer: B



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9. The IUPAC name of



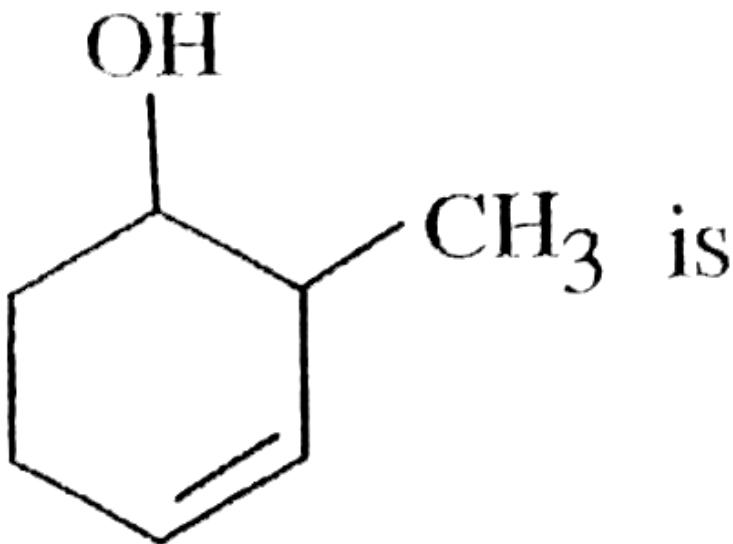
- A. 2-iminobutan-1,3,4-tricarboxamide
- B. 3-imino-4-carbomylhexan-1,6-diamide
- C. 6-amino-2-imino-4-carbamylhexanamide
- D. None of the above

Answer: B



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10. The IUPAC name of the following compound



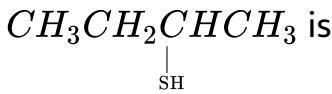
- A. 2-methyl-3-cyclohexenol
- B. 3-methyl-1-cyclohexen-4-ol
- C. 4-hydroxy-3-methyl-1-cyclohexene
- D. 2-hydroxy-1-methylcyclohexene

Answer: A



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11. The IUPAC name of the compound



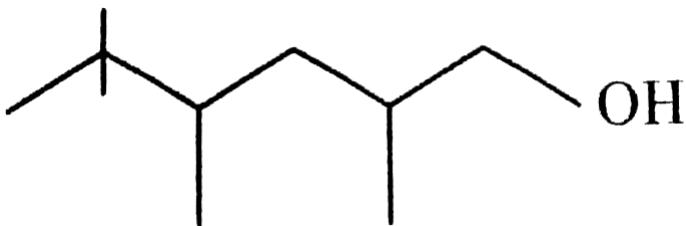
- A. 2-thiobutane
- B. 3-thiobutanol
- C. 2-butanethiol
- D. 1-methyl-1-thiopropane

Answer: C



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12. Number of primary, secondary and tertiary hydrogen in the following are respectively



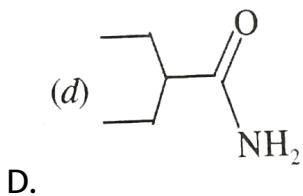
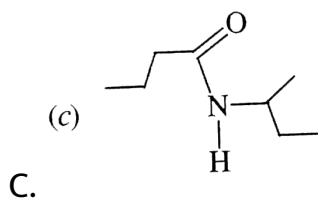
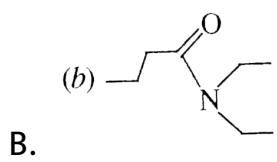
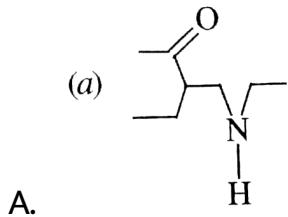
- A. $1^\circ \quad 2^\circ \quad 3^\circ$
18 2 2
- B. $1^\circ \quad 2^\circ \quad 3^\circ$
16 4 2
- C. $1^\circ \quad 2^\circ \quad 3^\circ$
15 4 2
- D. $1^\circ \quad 2^\circ \quad 3^\circ$
17 2 1

Answer: C



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13. Which among the following is an example of tertiary acid amide?



Answer: B



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