



CHEMISTRY

NCERT - FULL MARKS

CHEMISTRY(TAMIL)

**FUNDAMENTALS OF ORGANIC
CHEMISTRY**

Evaluate Yourself

1. 0.185 g of an organic compound when treated with Conc. HNO_3 and silver nitrate gave 0.320 g of silver bromide. Calculate the % of bromine in the compound. (Ag = 108, Br = 80)

Ans: 73.6



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2. 0.40 g of an iodo-substituted organic compound gave 0.235 g of AgI by carius

method. Calculate the percentage of iodine in the compound. (Ag = 108 I = 127)



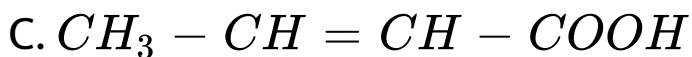
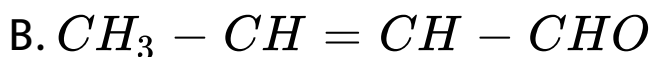
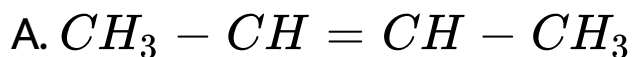
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3. 0.33 g of an organic compound containing phosphorous gave 0.397 g of $Mg_2P_2O_7$ by the analysis. Calculate the percentage of P in the compound



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1. Select the molecule which has only one π bond.



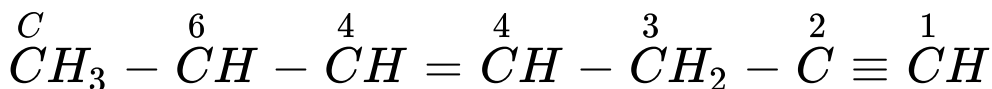
D. All of these

Answer: A

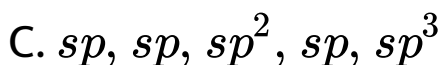
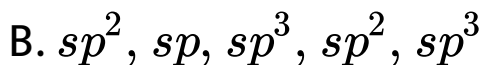
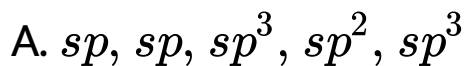


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2. In the hydrocarbon



the state of hybridisation of carbon 1,2,3,4 and 7 are in the following sequence.



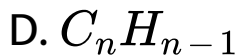
D. none of these

Answer: A



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3. The general formula for alkadiene is

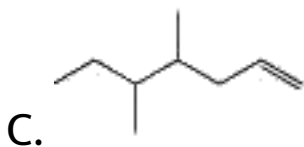
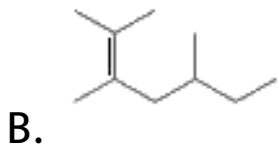
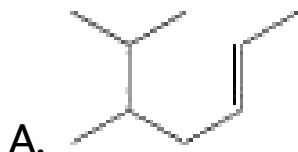


Answer: C



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4. Structure of the compound whose IUPAC name is 5,6 - dimethylhept - 2 - ene is

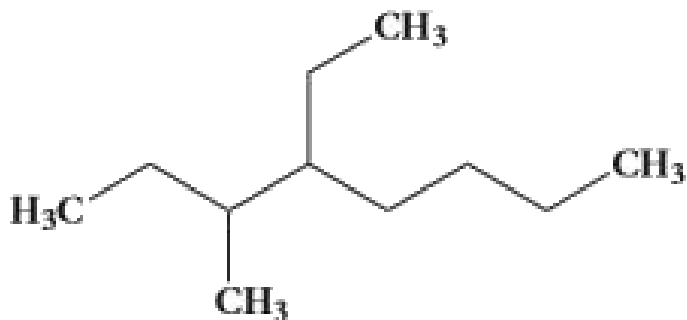


D. none of these

Answer: A



5. The IUPAC name of the Compound is



- A. 2,3 - Diethylheptane
- B. 3- Methyl -4- ethyloctane
- C. 5-ethyl -6-methyloctane
- D. 4-Ethyl -3 - methyloctane

Answer: D



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6. Which one of the following names does not fit a real name?

A. 3 – Methyl –3–hexanone

B. 4–Methyl –3– hexanone

C. 3– Methyl –3– hexanol

D. 2– Methyl cyclo hexanone

Answer: A



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7. The IUPAC name of the compound $CH_3-CH=CH-C\equiv CH$ is

A. Pent - 4 - yn-2-ene

B. Pent -3-en-1-yne

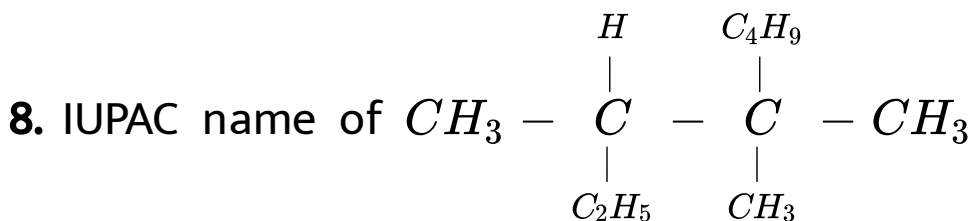
C. pent - 2- en - 4 - yne

D. Pent - 1 - yn -3 -ene

Answer: B



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is

A. 3,4,4 – Trimethylheptane

B. 2 – Ethyl –3, 3– dimethyl heptane

C. 3, 4,4 – Trimethyloctane

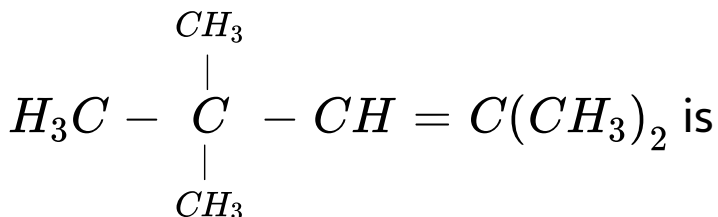
D. 2 – Butyl -2 –methyl – 3 – ethyl-butane

Answer: C



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9. The IUPAC name of



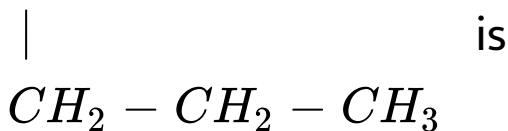
- A. 2,4,4 – Trimethylpent -2-ene
- B. 2,4,4 – Trimethylpent -3-ene
- C. 2,2,4 – Trimethylpent -3-ene
- D. 2,2,4 – Trimethylpent -2-ene

Answer: C



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10. The IUPAC name of the compound



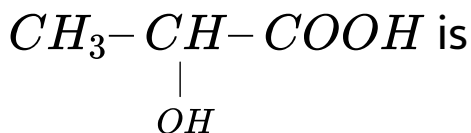
- A. 3 - Ethyl -2- hexene
- B. 3 - Propyl -3- hexene
- C. 4 - Ethyl - 4 - hexene
- D. 3 - Propyl -2-hexene

Answer: A



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11. The IUPAC name of the compound



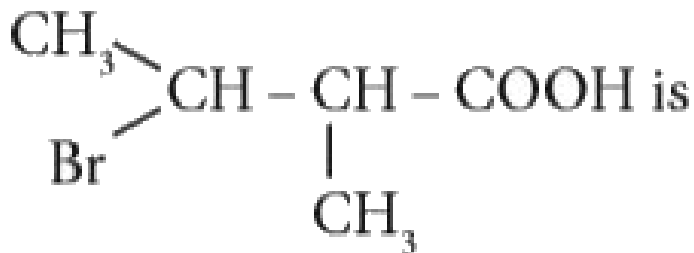
- A. 2 – Hydroxypropionic acid
- B. 2 – Hydroxy Propanoic acid
- C. Propan – 2– ol –1 – oic acid
- D. 1 – Carboxyethanol.

Answer: B



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12. The IUPAC name



is

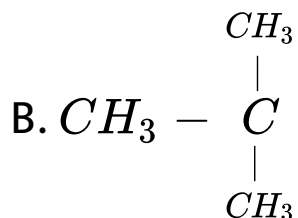
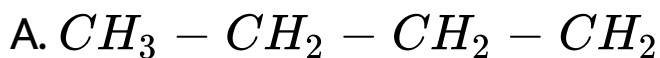
- A. 2 - Bromo - 3 - methyl butanoic acid
- B. 2 - methyl - 3- bromobutanoic acid
- C. 3 - Bromo - 2 - methylbutanoic acid

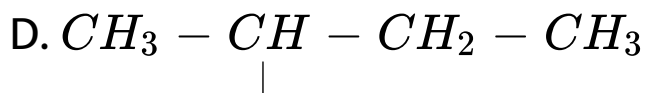
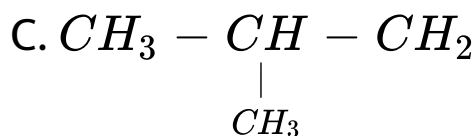
D. 3 - Bromo - 2, 3 - dimethyl propanoic acid.

Answer: C

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13. The structure of isobutyl group in an organic compound is





Answer: C

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14. The number of stereoisomers of 1, 2 - dihydroxy cyclopentane

A. 1

B. 2

C. 3

D. 4

Answer: C



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15. Which of the following is optically active

A. 3 – Chloropentane

B. 2 Chloro propane

C. Meso – tartaric acid

D. Glucose

Answer: D



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16. The isomer of ethanol is

A. The isomer of ethanol is

B. dimethylether

C. acetone

D. methyl carbinol

Answer: B



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17. How many cyclic and acyclic isomers are possible for the molecular formula C_3H_6O ?

A. 4

B. 5

C. 9

D. 10

Answer: C



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18. Which one of the following shows functional isomerism?

A. ethylene

B. Propane

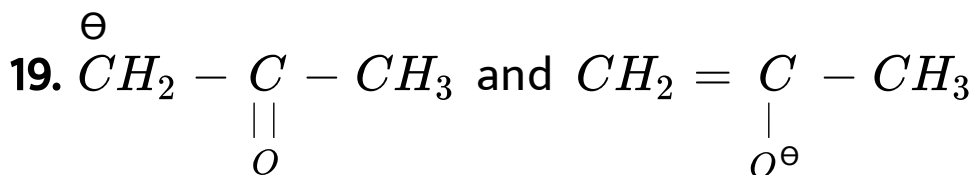
C. ethanol

D. CH_2Cl_2

Answer: C



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are

A. resonating structure

B. tautomers

C. Optical isomers

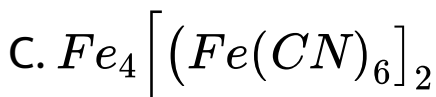
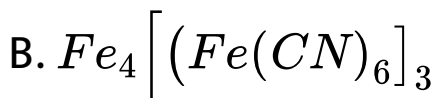
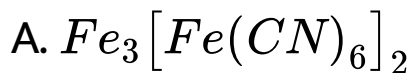
D. Conformers

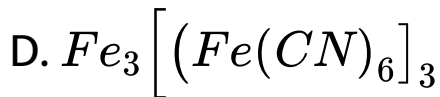
Answer: B



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20. Nitrogen detection in an organic compound is carried out by Lassaigne's test. The blue colour formed is due to the formation of.





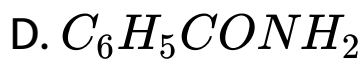
Answer: B



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21. Lassaigne's test for the detection of nitrogen fails in





Answer: C



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22. Connect pair of compounds which give blue colouration / precipitate and white precipitate respectively, when their Lassaigne's test is separately done.



B. NH_2CSNH_2 and CH_3-CH_2Cl

C. NH_2CH_2COOH and NH_2CONH_2

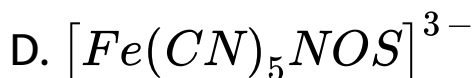
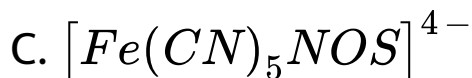
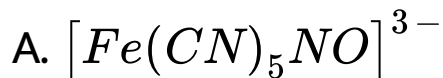
D. $C_6H_5NH_2$ and $ClCH_2-CHO$.

Answer: D



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23. Sodium nitropruside reacts with sulphide ion to give a purple colour due to the formation of



Answer: C



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24. An organic Compound weighing 0.15g gave on carius estimation, 0.12g of silver bromide.

The percentage of bromine in the Compound will be close to

A. 0.46

B. 0.34

C. 3.4 %

D. 4.6 %

Answer: B



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25. A sample of 0.5g of an organic compound was treated according to Kjeldahl's method. The ammonia evolved was absorbed in 50mL of 0.5M H_2SO_4 . The remaining acid after neutralisation by ammonia consumed 80mL of 0.5 MNaOH, The percentage of nitrogen in the organic compound is.

A. 0.14

B. 0.28

C. 0.42

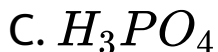
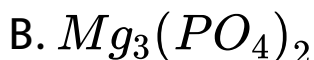
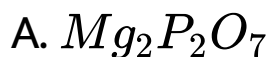
D. 0.56

Answer: B



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26. In an organic compound, phosphorus is estimated as



D. P_2O_5

Answer: A



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27. Ortho and para-nitro phenol can be separated by

A. azeotropic distillation

B. destructive distillation

C. steam distillation

D.

Answer: C



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28. The purity of an organic compound is determined by

A. Chromatography

B. Crystallisation

C. melting or boiling point

D. both (a) and (c)

Answer: D



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29. A liquid which decomposes at its boiling point can be purified by

A. distillation at atmospheric pressure

B. distillation under reduced pressure

C. fractional distillation

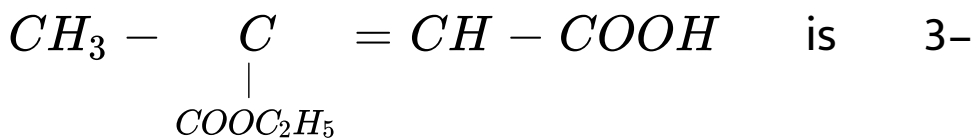
D. steam distillation.

Answer: B

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30.

Assertion:



carbethoxy -2- butenoic acid.

Reason: The principal functional group gets lowest number followed by double bond (or) triple bond.

A. both the assertion and reason are true and the reason is the correct explanation of assertion.

B. both assertion and reason are true and the reason is not the correct explanation of assertion.

C. assertion is true but reason is false

D. both the assertion and reason are false.

Answer: A



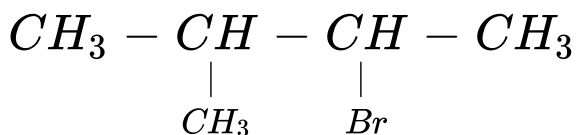
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31. Give the IUPAC names of the compounds.



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32. Give the IUPAC names of the compounds.



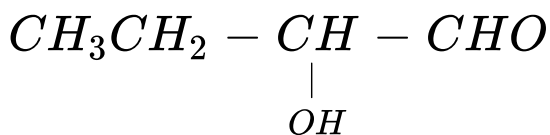
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33. Give the IUPAC names of the compounds.



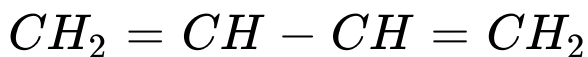
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34. Give the IUPAC names of the compounds.



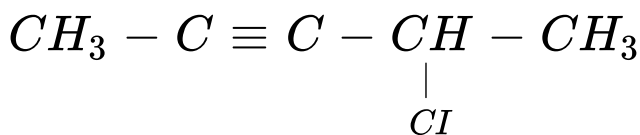
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35. Give the IUPAC names of the compounds.



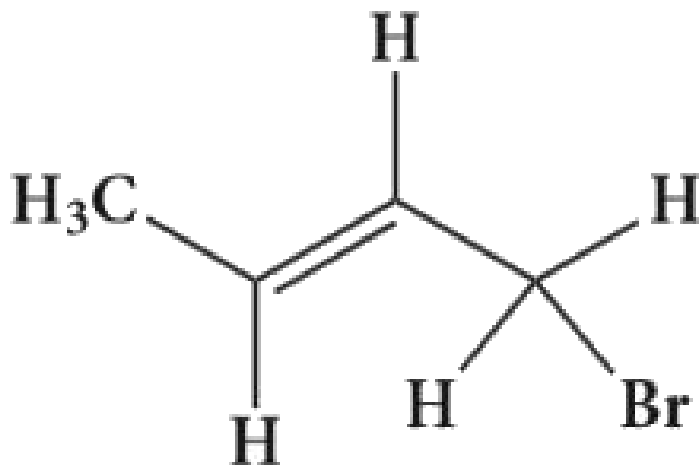
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36. Give the IUPAC names of the compounds.



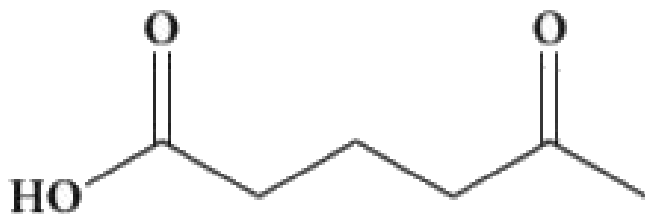
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37. Give the IUPAC names of the compounds.



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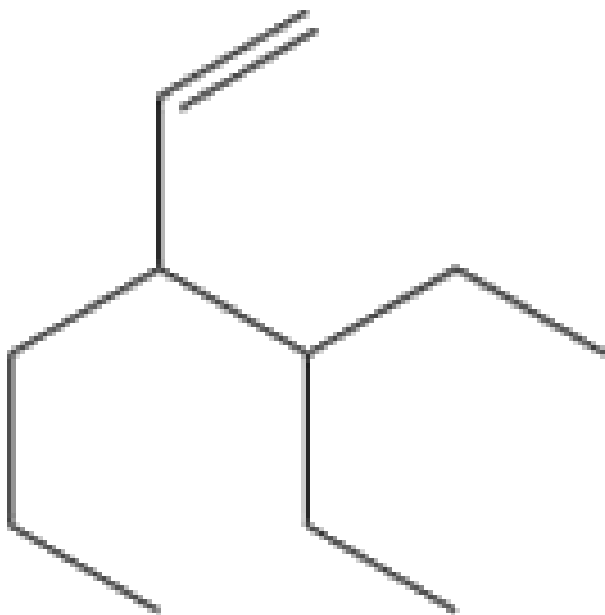
38. Give the IUPAC names of the compounds.





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39. Give the IUPAC names of the compounds.



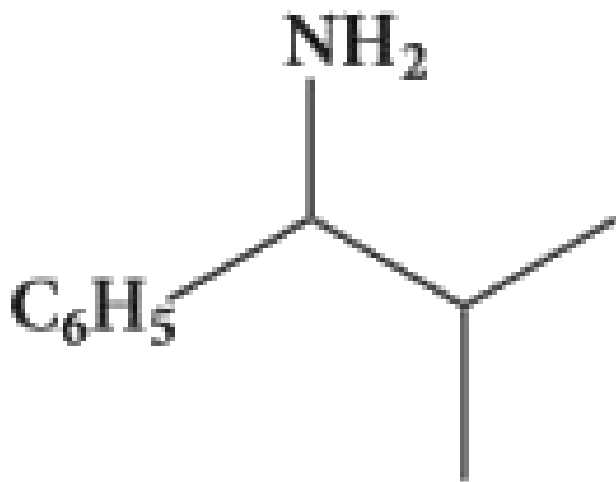
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40. Give the IUPAC names of the compounds.



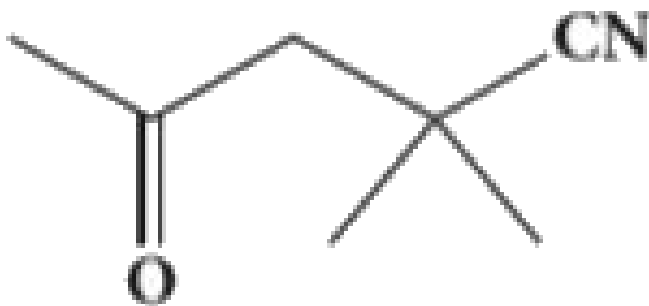
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41. Give the IUPAC names of the compounds.



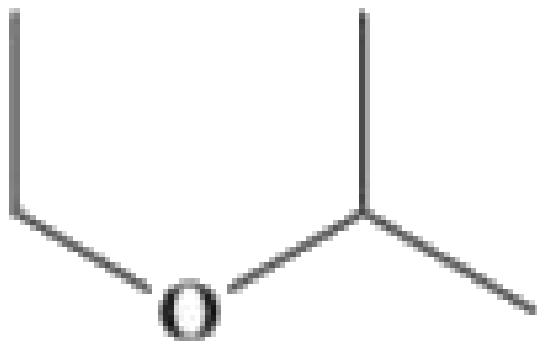
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42. Give the IUPAC names of the compounds.



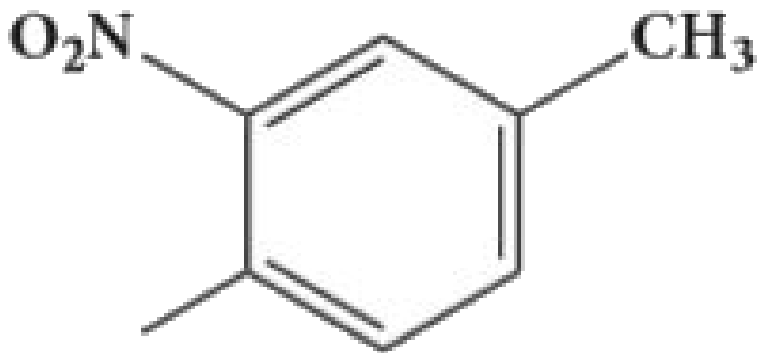
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43. Give the IUPAC names of the compounds.



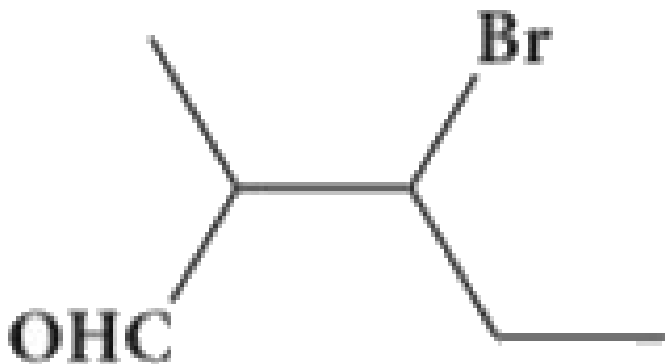
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44. Give the IUPAC names of the compounds.



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45. Give the IUPAC names of the compounds.



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46. Give the structure for the compound.

3-ethyl - 2 methyl -1-pentene

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47. Give the structure for the compound.

1,3,5- Trimethyl cyclohex - 1 -ene



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48. Give the structure for the compound.

tertiary butyl iodide



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49. Give the structure for the compound.

3 - Chlorobutanal



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50. Give the structure for the compound.

3 - Chlorobutanol



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51. Give the structure for the compound.

2 - Chloro - 2- methyl propane



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52. Give the structure for the compound.

2,2-dimethyl-1-chloropropane



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53. Give the structure for the compound.

3 - methylbut -1- ene



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54. Give the structure for the compound.

Butan - 2, 2 - diol



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55. Give the structure for the compound.

Octane - 1,3- diene



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56. Give the structure for the compound.

1,5- Dimethylcyclohexane



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57. Give the structure for the compound.

2-Chlorobut - 3 - ene



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58. Give the structure for the compound.

2 - methylbutan - 3 - ol



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59. Give the structure for the compound.

acetaldehyde



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