

VIDYAPEETH



BATCH CODE: 19-PJ301EA 2025

SUBJECT NAME: CHEMISTRY

CHAPTER NAME:

Organic chemistry IUPAC Nomenclature

ATDB.uno



Lecture No.

05

By – Swapnil Sir



Today's Goal

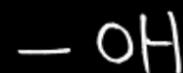
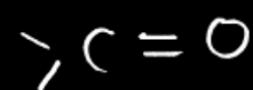
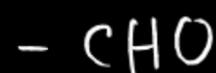
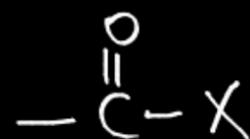
Subtopic

I.U.P.A.C. Nomenclature
{ Poly-functional groups }

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functional group



suffix name

oyl halide

amide

nitrile

carbylamine

al

one

ol

thiol

amine

—

—

prefix name

Haloformyl or Halocarbonyl

Carbonyl

Cyano

isocyano

formyl or aldo

Keto or oxo

hydroxy

mercapto

amino

alkoxy

epoxy

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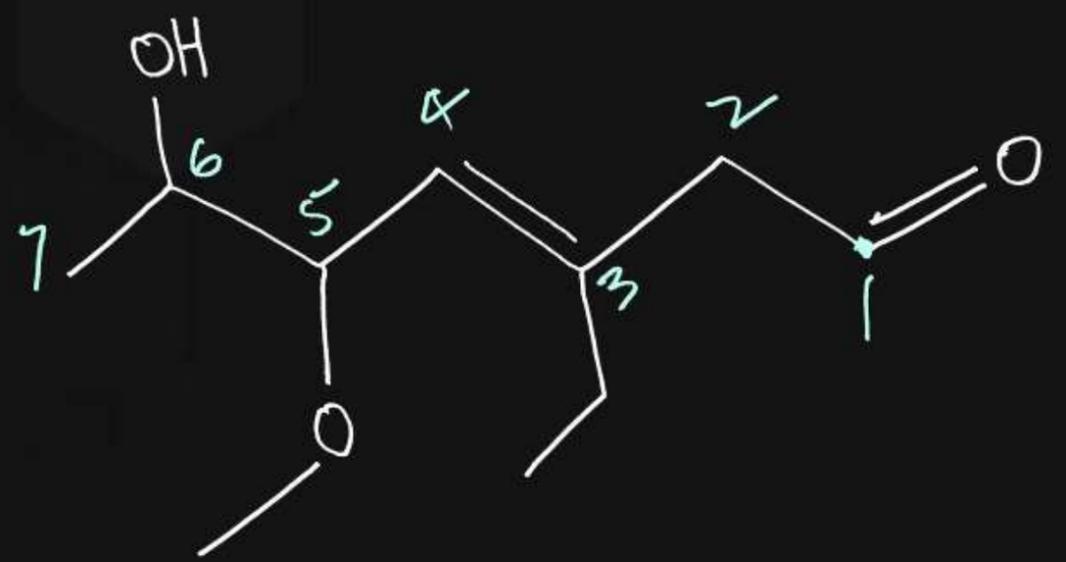


-
- C=C -
 - C≡C -
 - N=N -
 - NO₂
 - NO
 - X

- yne (S-I)
- azo
- nitro
- nitroso
- halo

P + RW + S-I + S-II

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3-ethyl-6-hydroxy-5-methoxyhept-3-ene-1-al

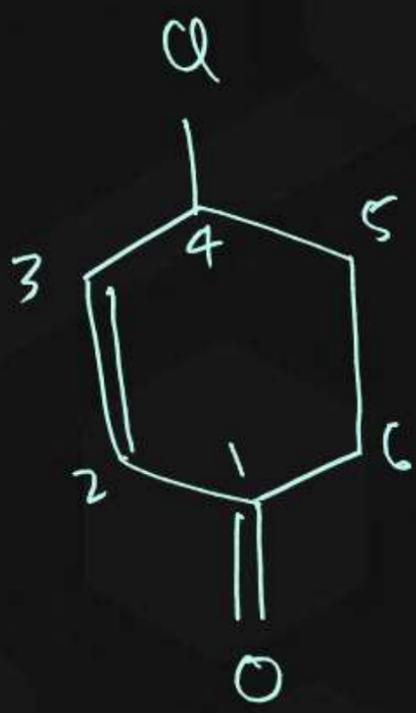
P

RW

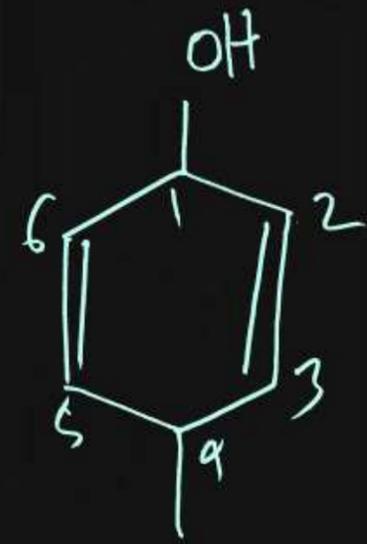
3 enal



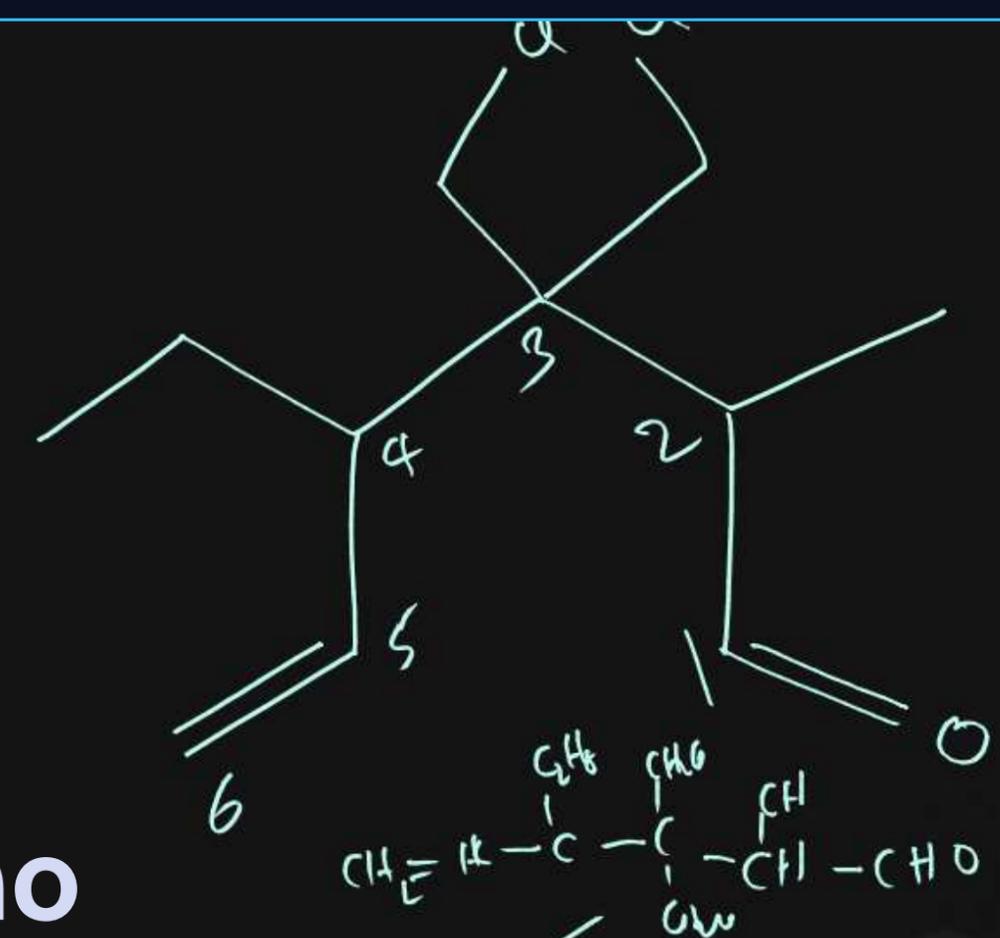
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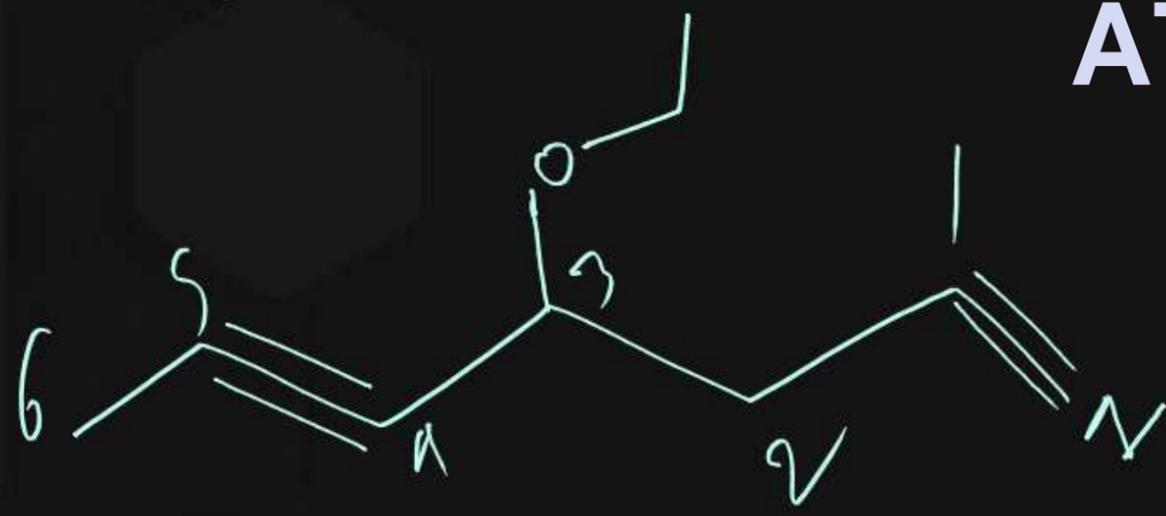


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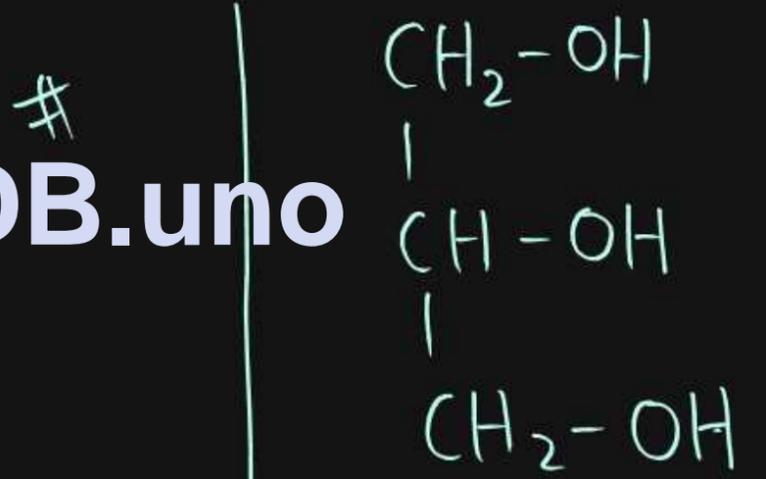
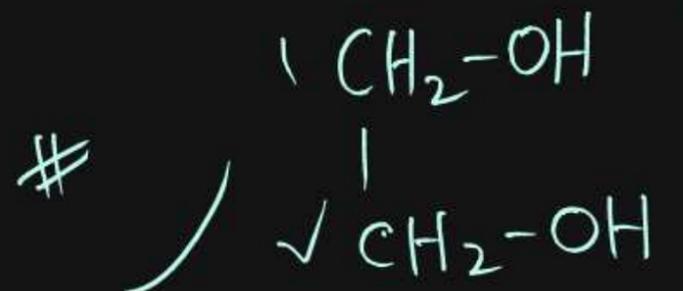
N-ethyl, N-methyl Propanamine



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Ethane-1,2-diol

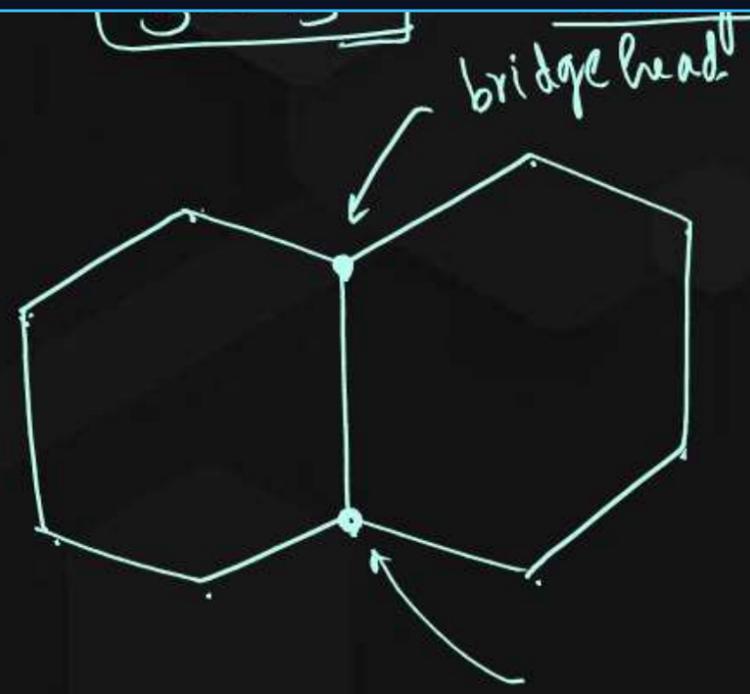
glycol



Propane-1,2,3-triol

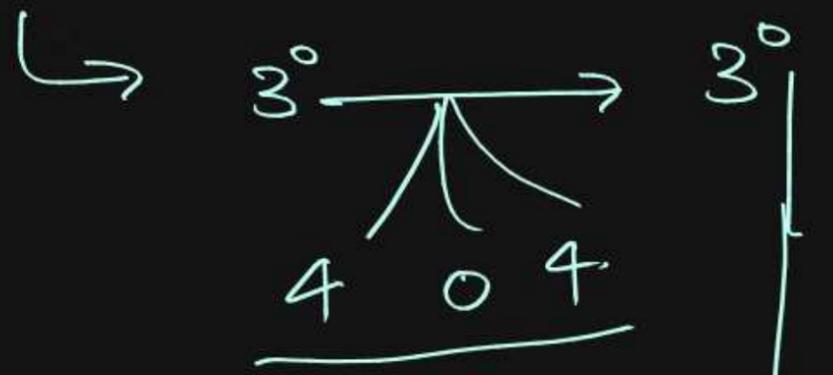


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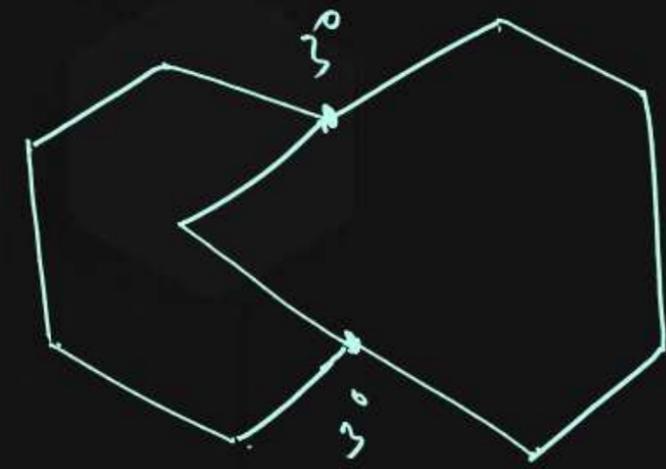


Prefix → bicyclo

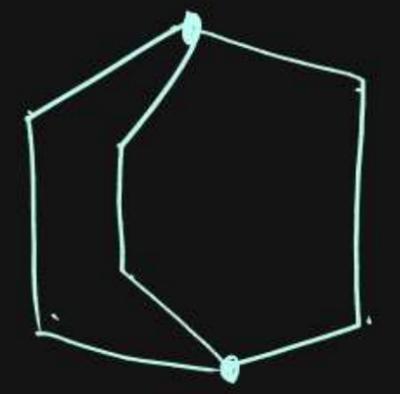
↳ Numbering bridge head



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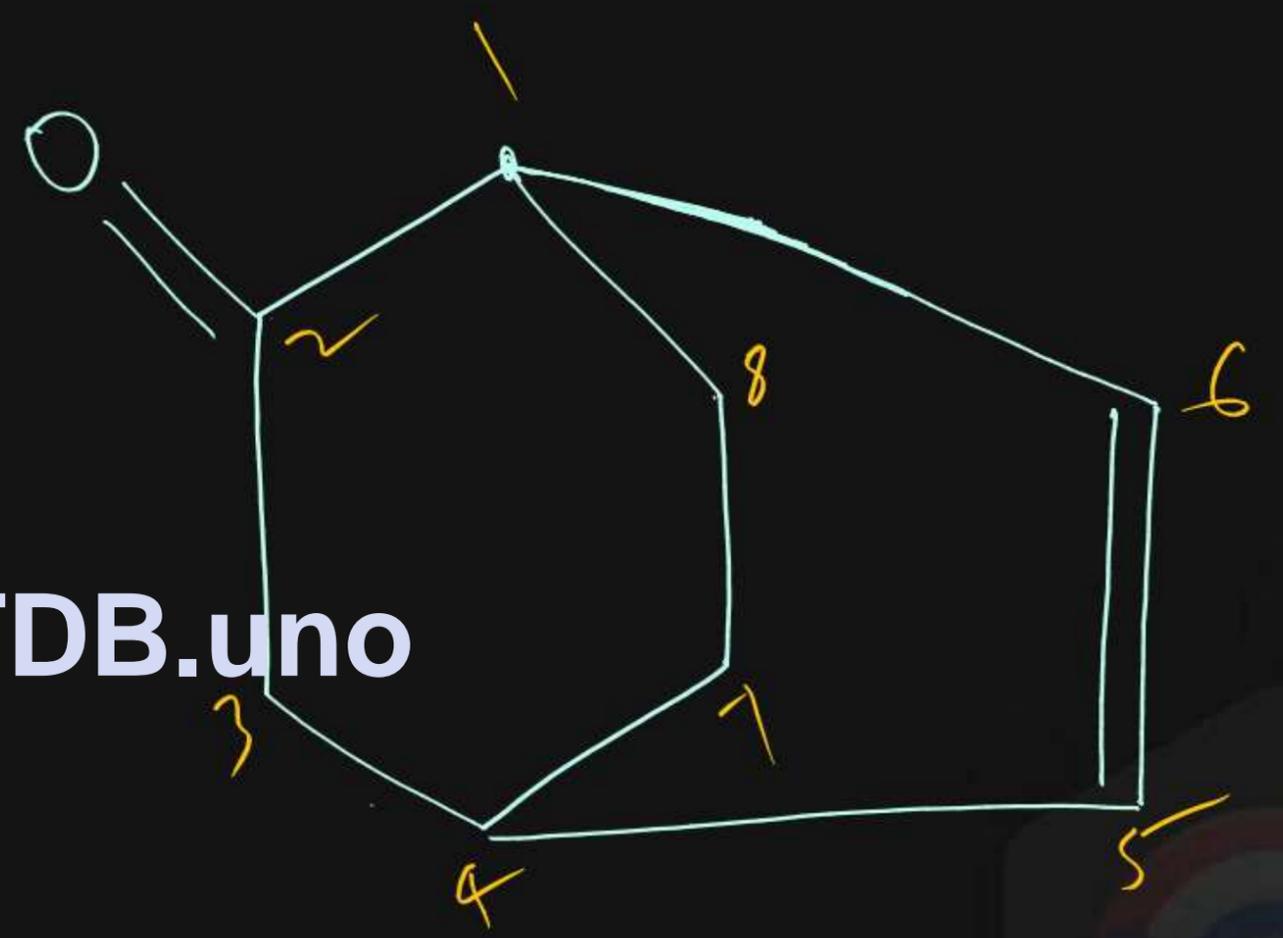
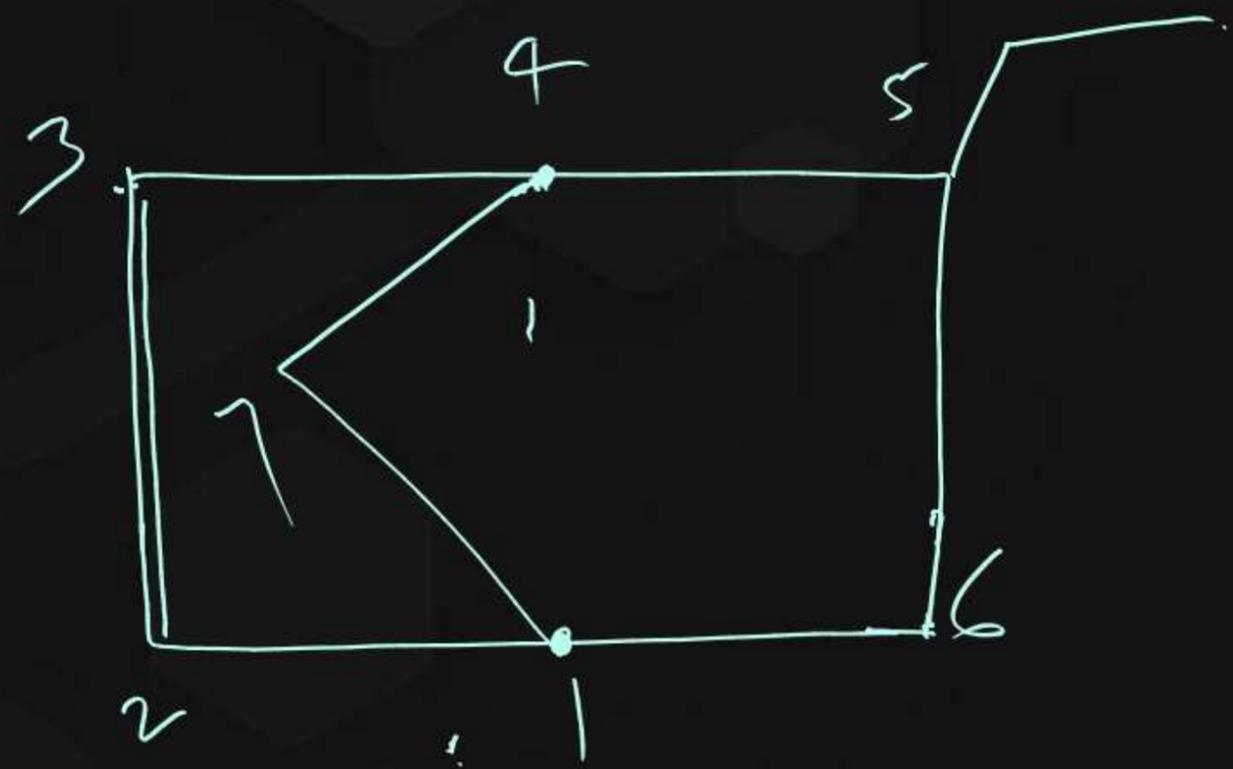
Bicyclo[4.4.1]



Bicyclo[2.2.2] Octane



(2.2.1)



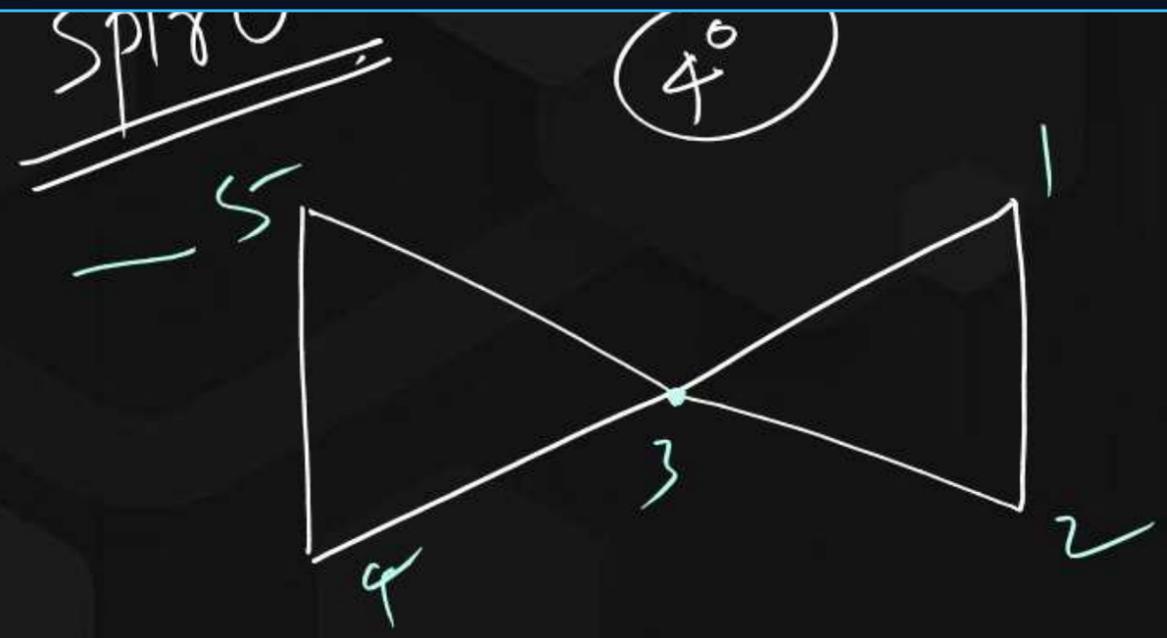
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F.P.D

L → S-II

L → S-I

L → P



Spiro [2,2] Pentane

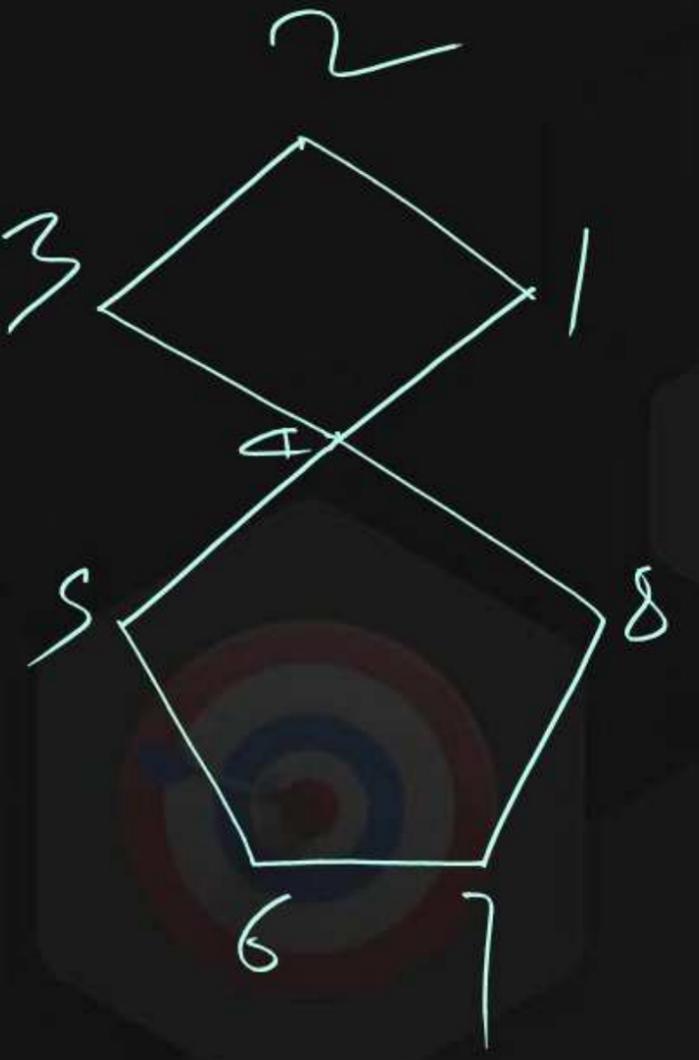
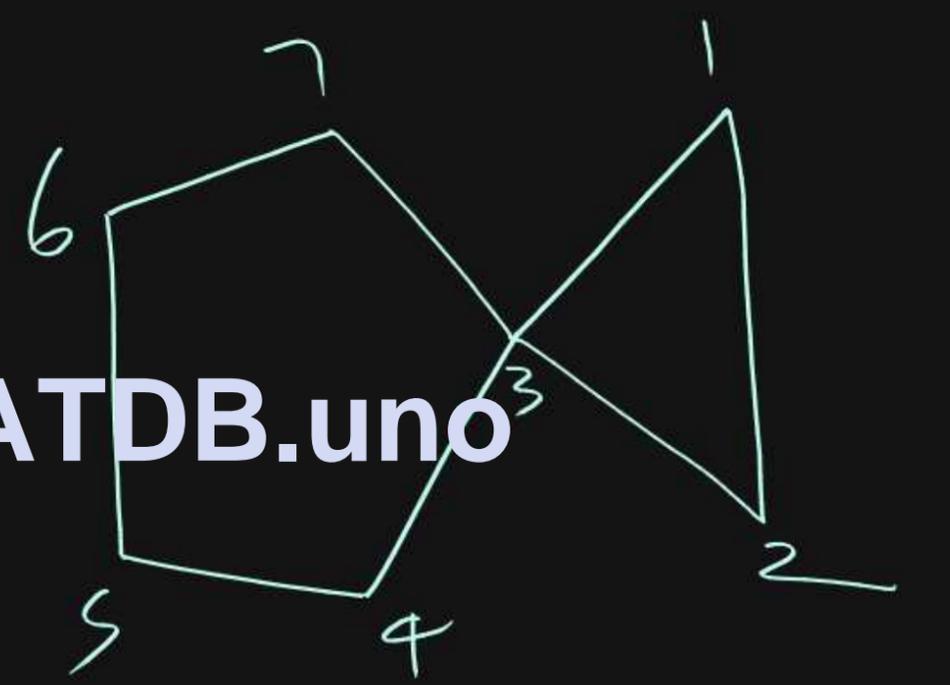
→ Prefix — SPIRO

↳ number start ring having lesser number of carbon.

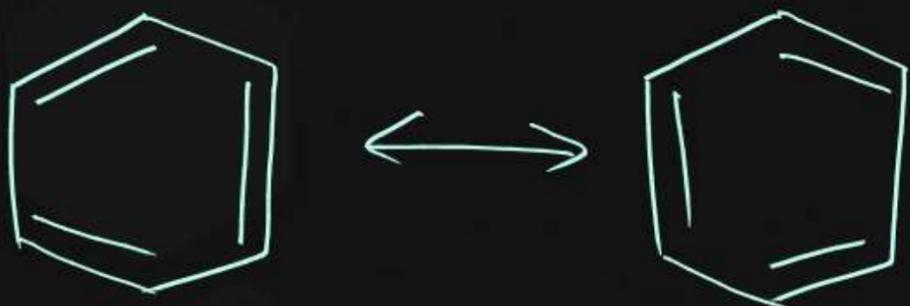
(4°) two or fused!



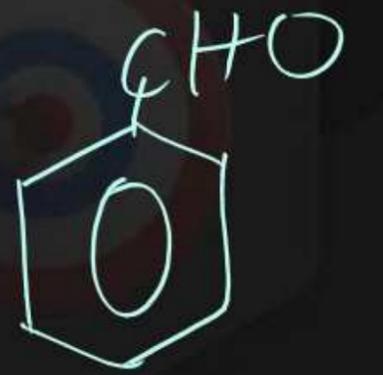
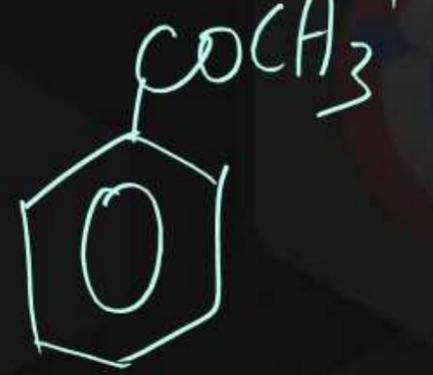
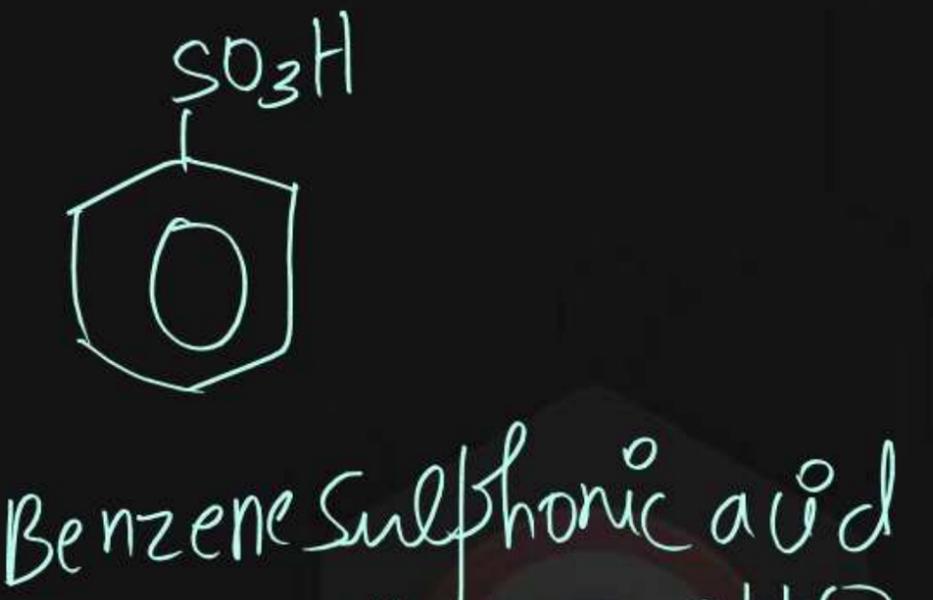
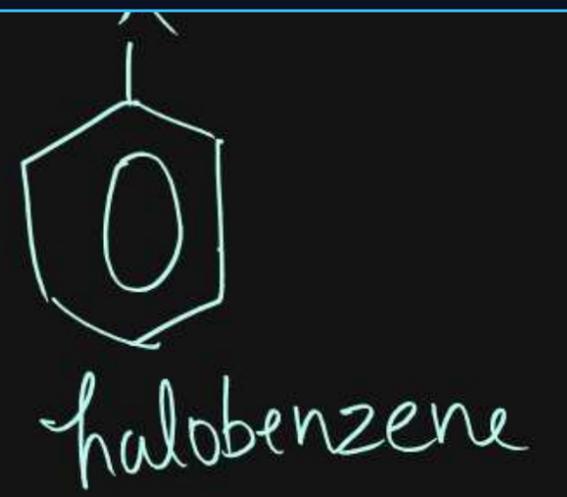
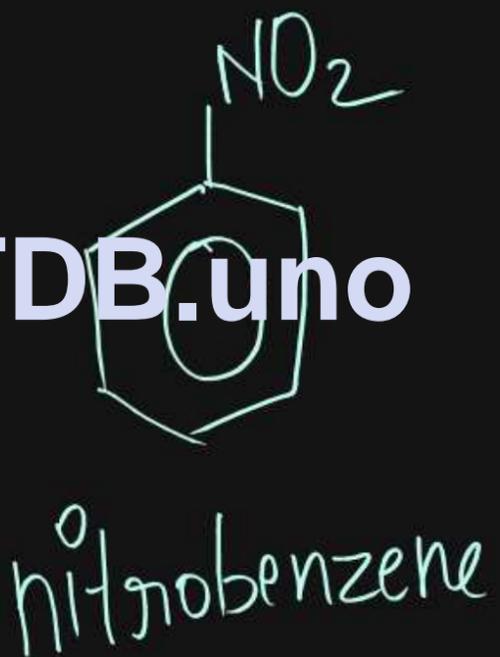
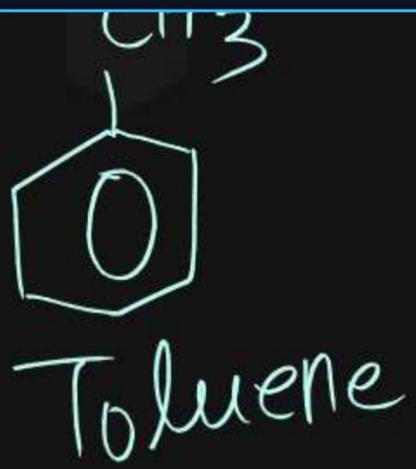
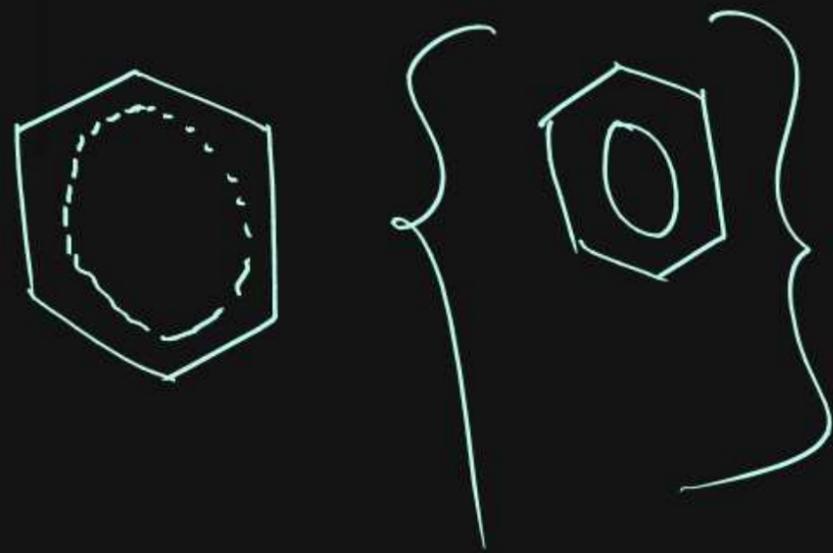
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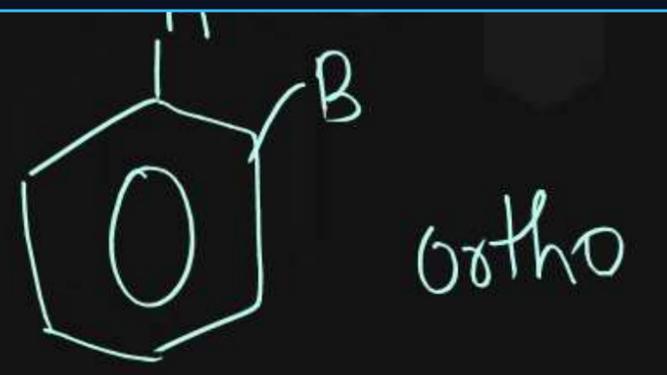
Aromatic



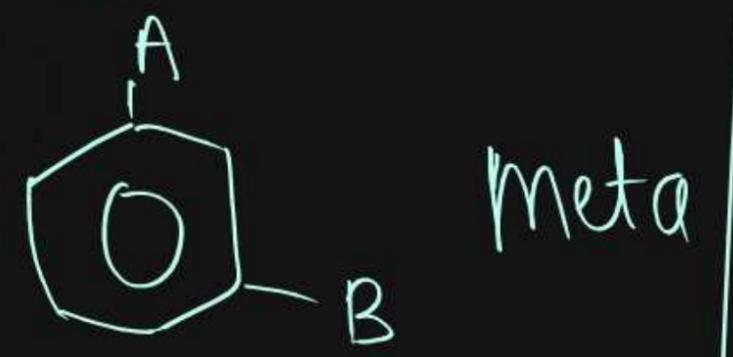
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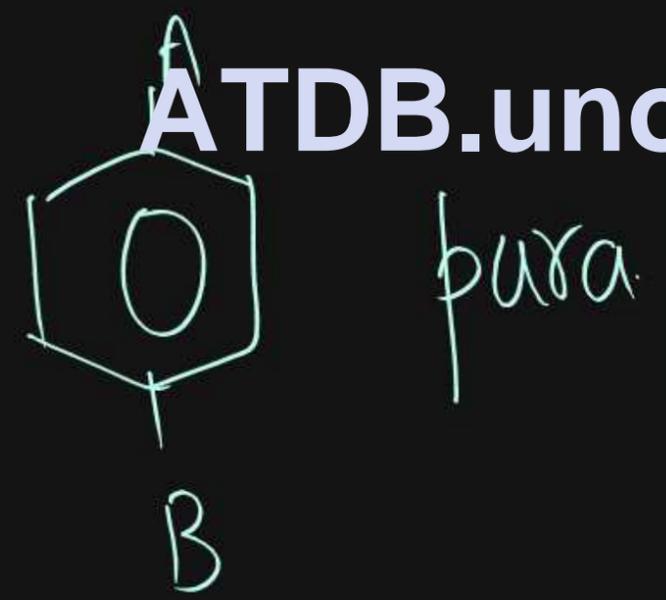
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ortho

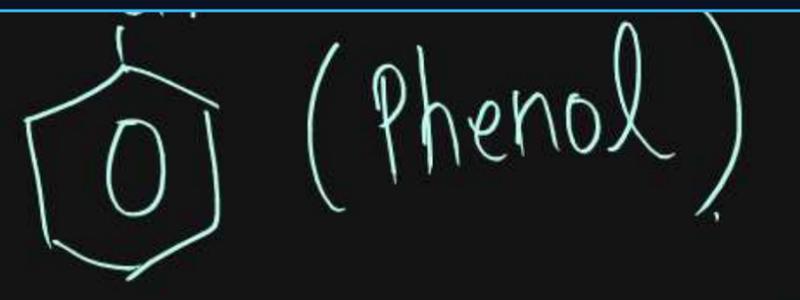


meta

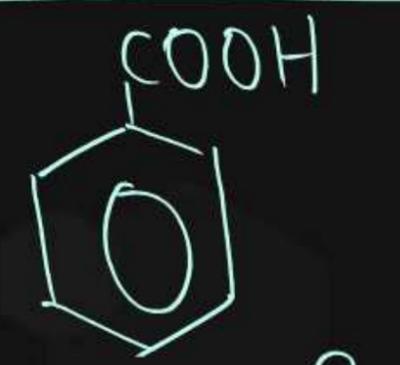
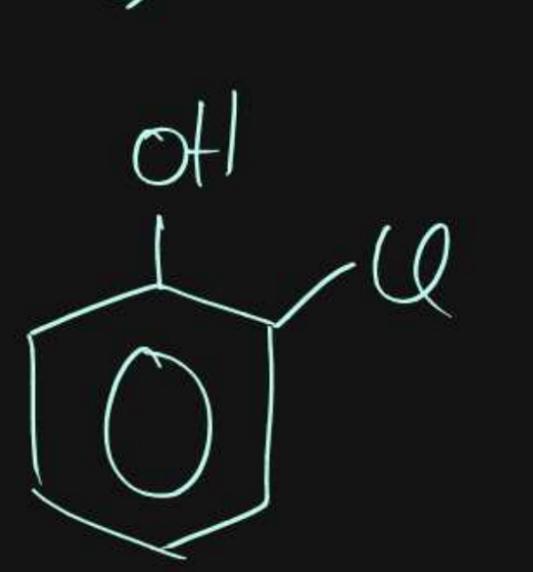


para

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(Phenol)



Benzoic acid

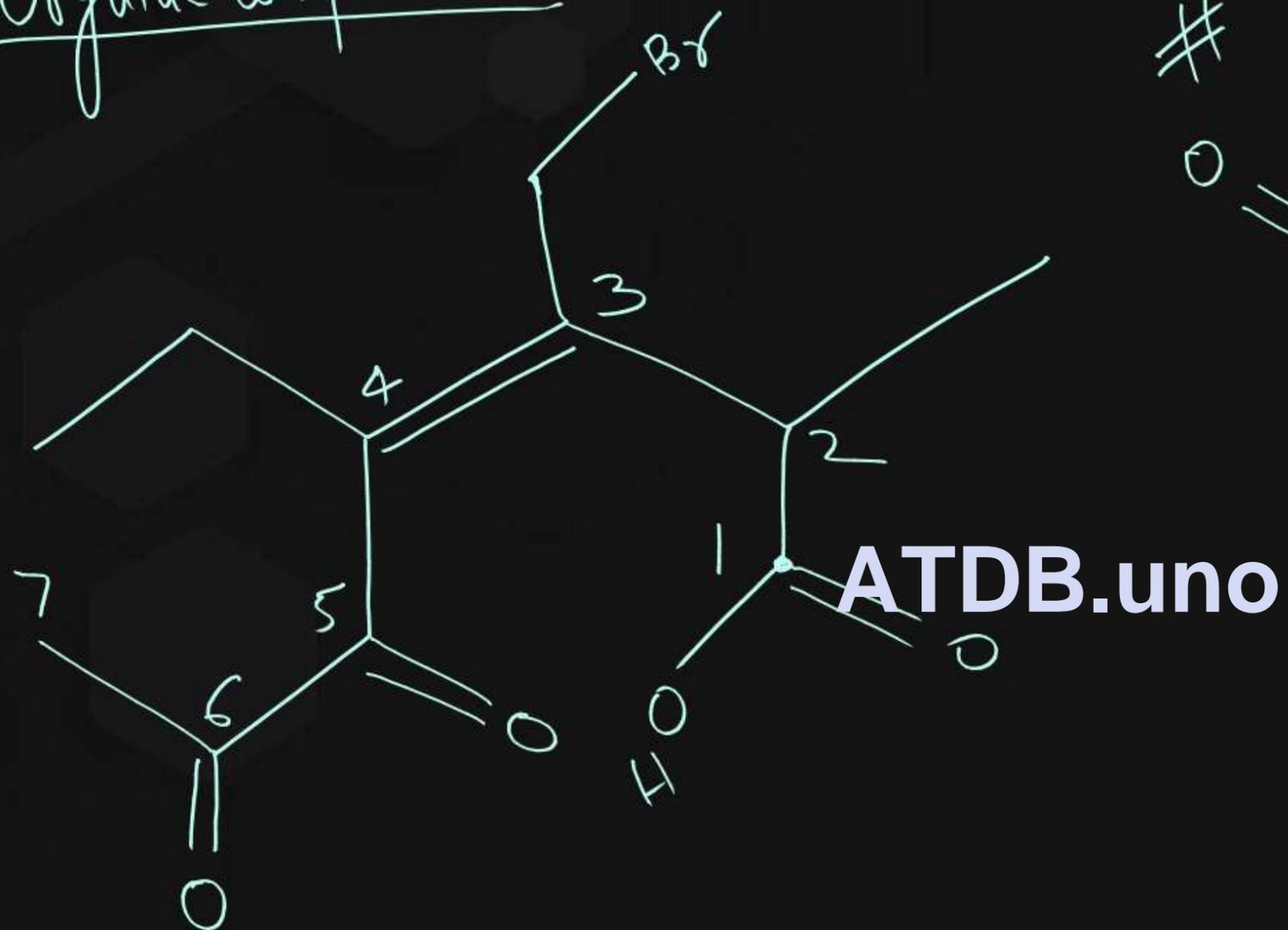




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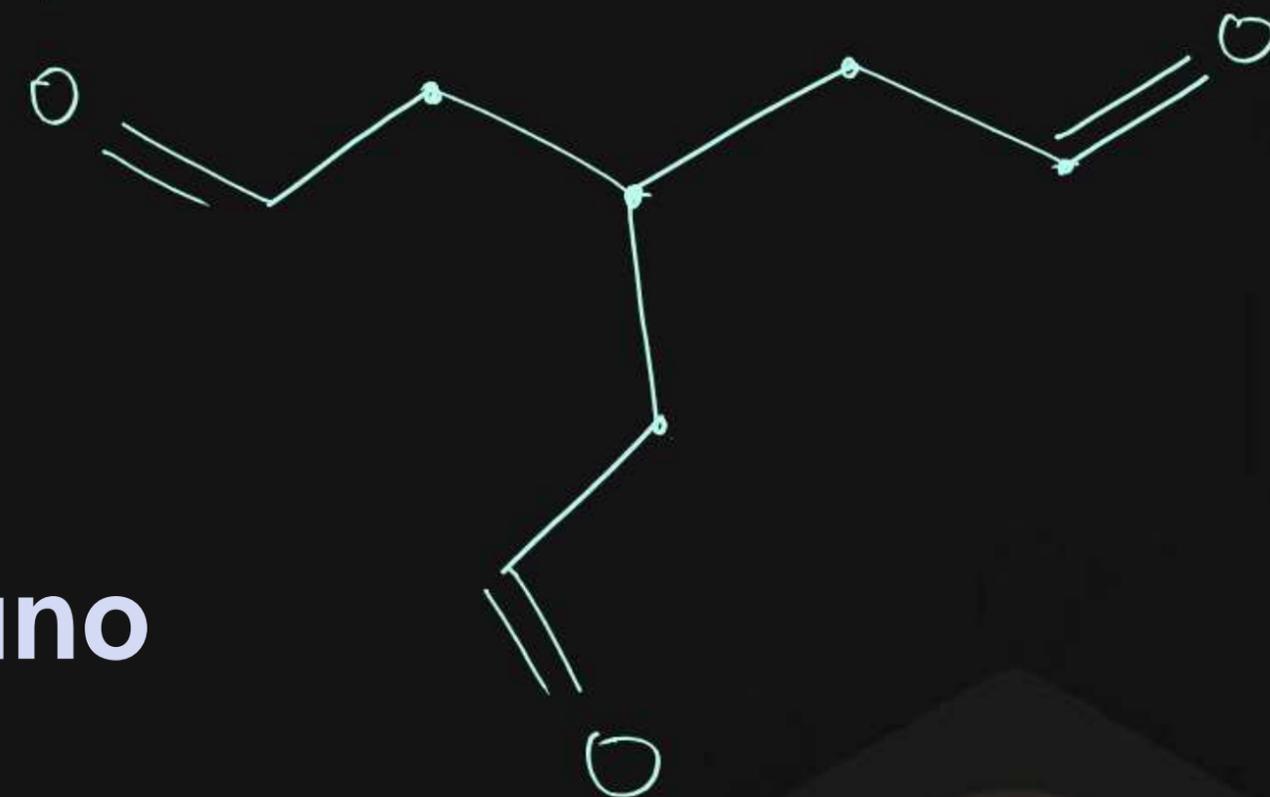
Organic compound

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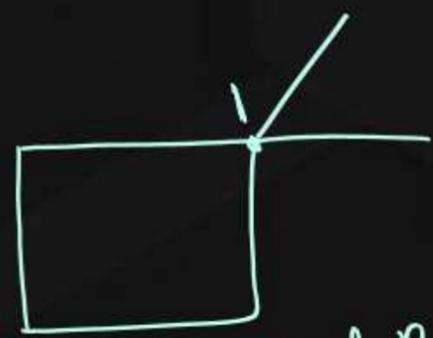


OHC-CH₂-CH₂-CH₂-CHO

3-bromomethyl-4-ethyl-5,6-diketo-2-methylhept-3-enoic acid

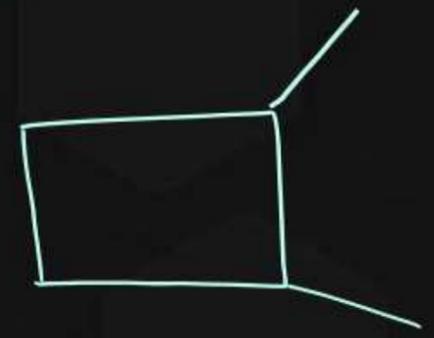


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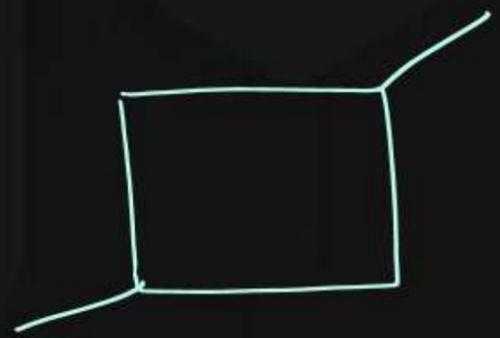


C_6H_{12}

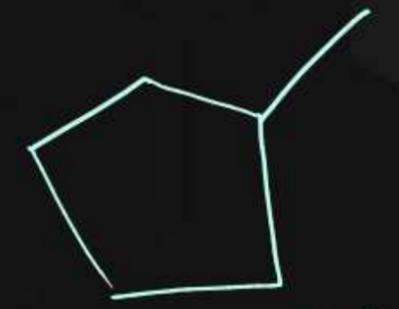
1,1-dimethyl cycloButane



C_6H_{12}



C_6H_{12}

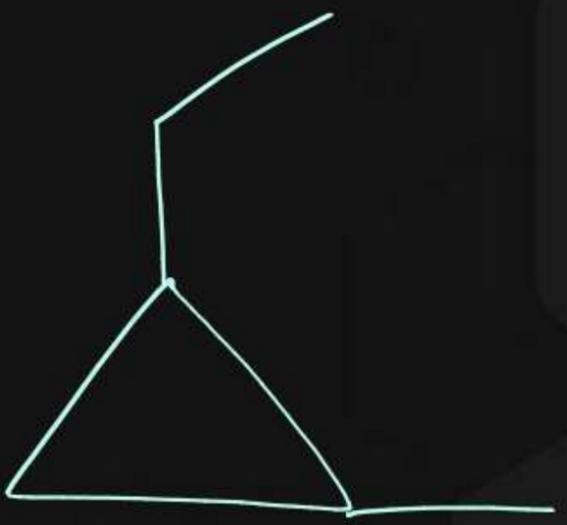


C_6H_{12}



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C_6H_{12}



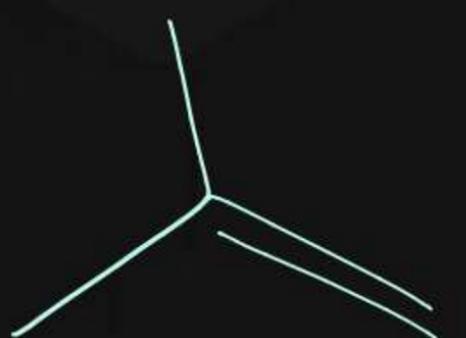
C_6H_{12}



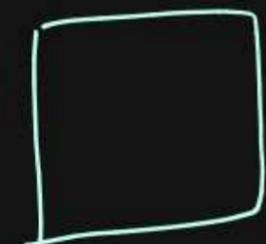
C_4H_8 | D.B.E. 1

C_5H_{10}

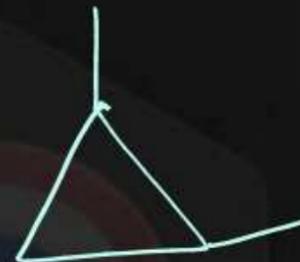
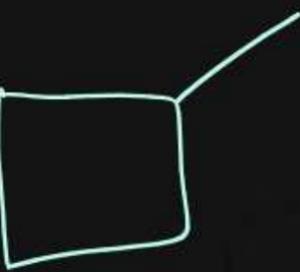
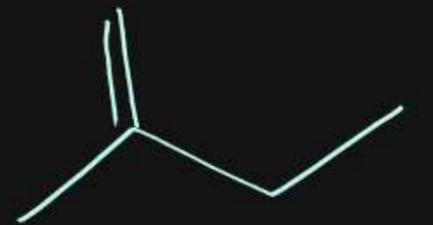
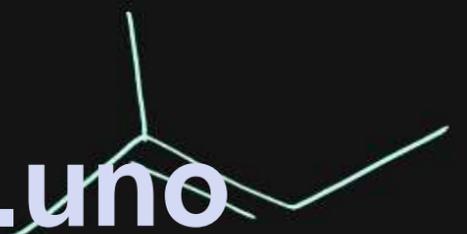
(1D)

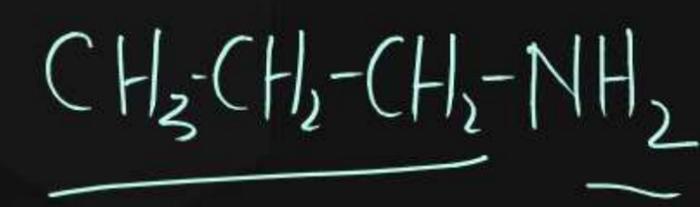
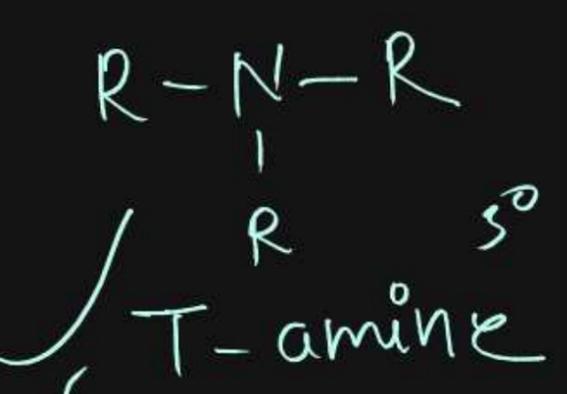
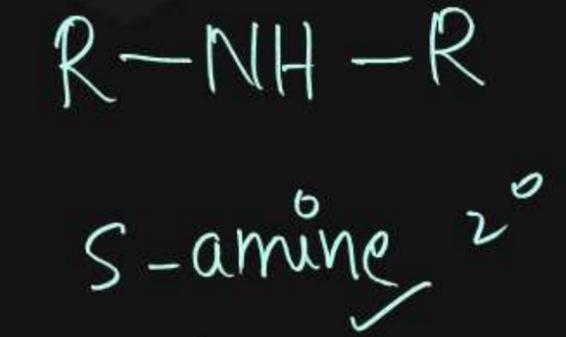
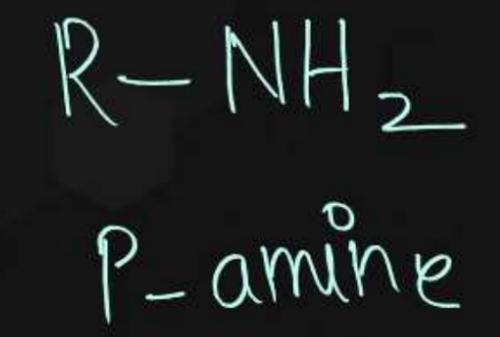


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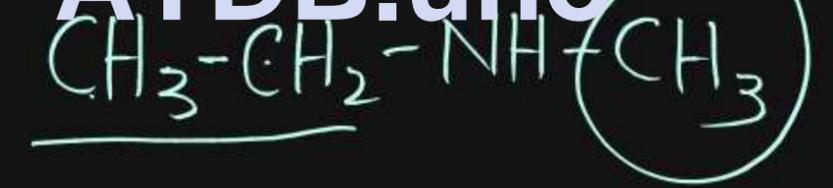
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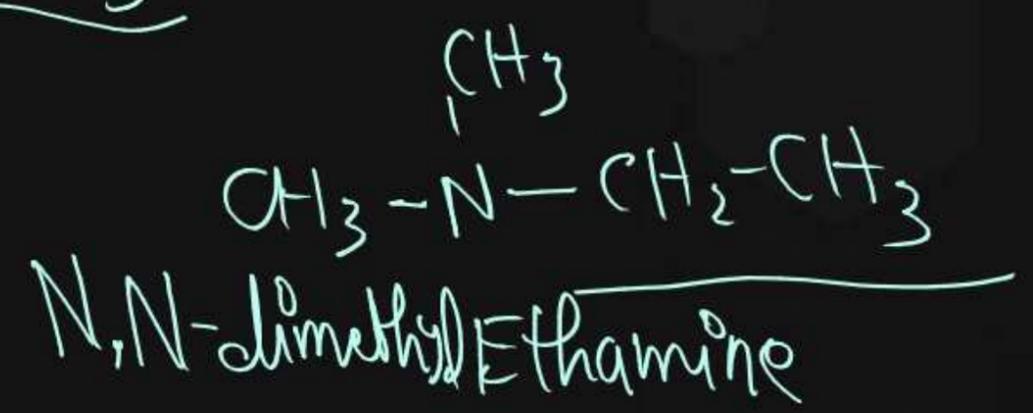


Propane amine

Propanamine



N-methyl Ethanamine



tetraalkyl ammonium salt

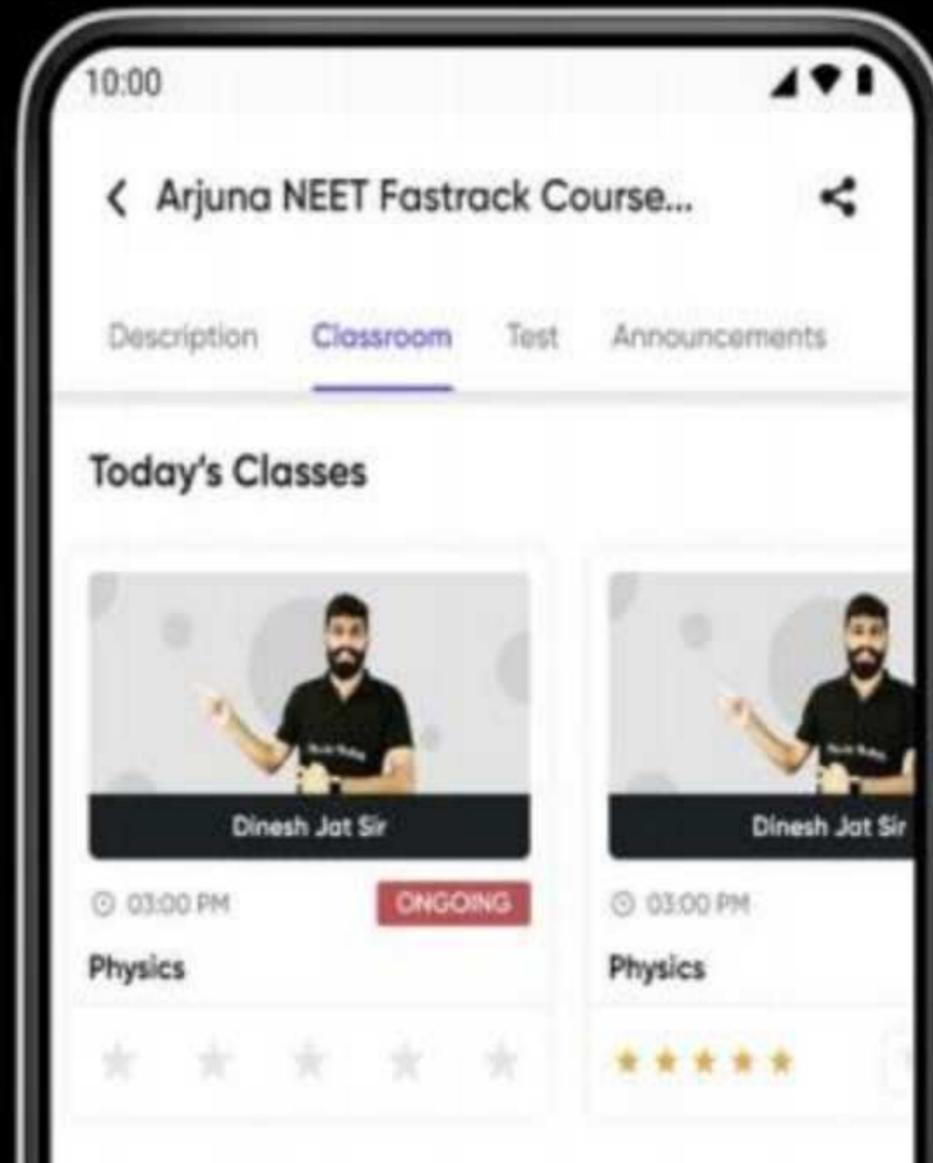
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VIDYAPEETH



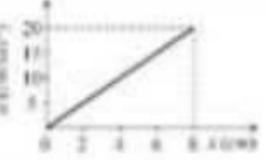
WORK, POWER AND ENERGY

DPP-1 (JAP/046)

[Introduction, Definition of work, work done by constant force, Area under force-displacement curve]

1. A particle moves from position $\vec{r}_1 = 3\hat{i} + 2\hat{j} - 6\hat{k}$ to position $\vec{r}_2 = 14\hat{i} + 13\hat{j} + 9\hat{k}$ under the action of force $-4\hat{i} + \hat{j} + 3\hat{k}$ N. The work done by this force will be

(A) 100 J
(B) 50 J



(A) 8×10^{-2} joules
(B) 16×10^{-2} joules
(C) 4×10^{-4} joules

Thank You!!!!

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