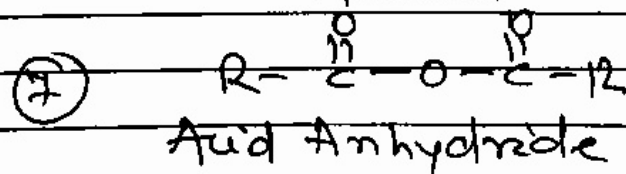
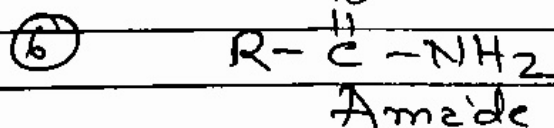
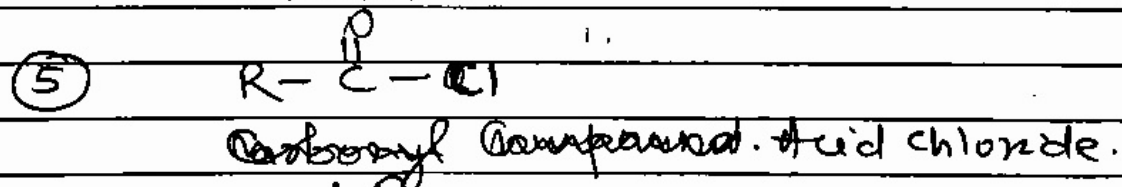
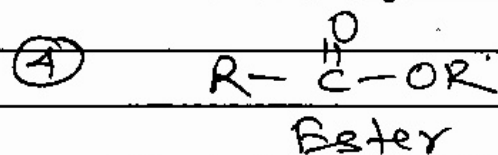
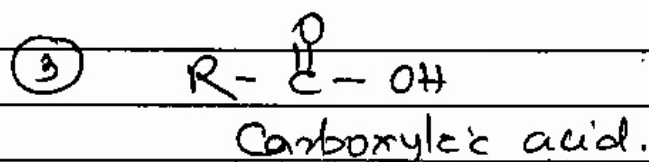
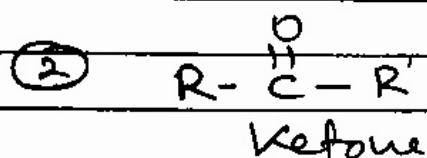
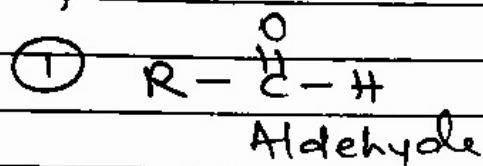


Aldehyde Ketone & Carboxylic acid

Deare Part I, Paper II, Group - 'B' Introduction of Carbonyl Comp

Aldehyde, Ketone and Carboxylic acid
all three belongs to Carbonyl compound.
Carbonyl Compound is $>C=O$ OR $-C-$
Carbonyl Compound containing groups are
as follows



Teacher's Signature : _____

Nomenclature

Aldehyde : F.G: $\text{--}\overset{\text{O}}{\parallel}\text{C--H}$

G.F: $\text{R--}\overset{\text{O}}{\parallel}\text{C--H}$

General I.U.P.A.C name: Alkanal.

i.e 1. $\text{H--}\overset{\text{O}}{\parallel}\text{C--H}$

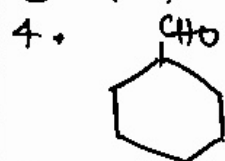
Formaldehyde - trivial name

(Methanal) - I.U.P.A.C name.

2. $\text{CH}_3\text{--}\overset{\text{O}}{\parallel}\text{C--H}$

Acetaldehyde - trivial name

Cyclopropanecarbaldehyde, Ethanal - I.U.P.A.C name



4. H--C=O



Cyclohexanecarbaldehyde, Benzaldehyde trivial name + I.U.P.A.C name.
or Benzal I.U.P.A.C name.

It is also called Benzene carbaldehyde.

Note: $\rightarrow$

When CHO group is out of numbering or if it has not counted in main chain then it is called Carbaldehyde.

Nomenclature of Ketone:

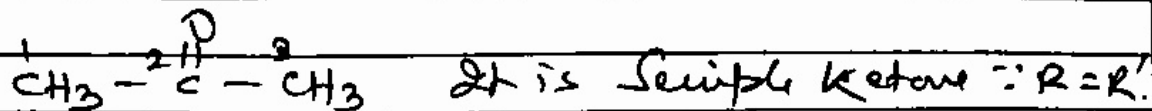
F.G: $\text{--}\overset{\text{O}}{\parallel}\text{C--}$

G.F: $\text{R--}\overset{\text{O}}{\parallel}\text{C--R'}$

If $\text{R} = \text{R}'$ = Simple ketone

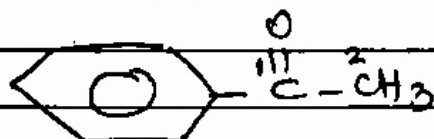
If $\text{R} \neq \text{R}'$ = Mixed ketone.

General I.U.P.A.C name: Alkanone.



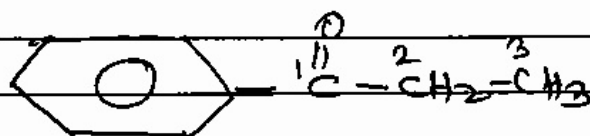
Acetone: (trivial name)

Propan-2-one (I.U.P.A.C name).



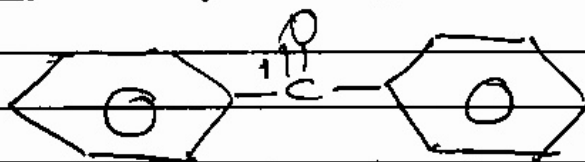
Acetophenone

1-phenylethan-1-one



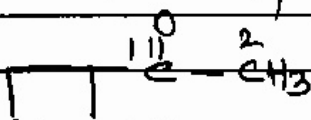
Propiophenone. (Trivial name)

1-phenylpropan-1-one. (IUPAC name)

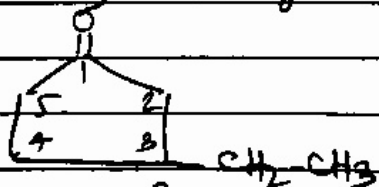


1,1-diphenylethan-1-one (I.U.P.A.C name)

Benzophenone (trivial name)



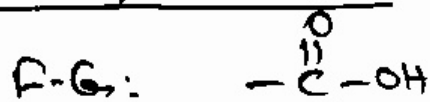
1-cyclobutyl-ethanone (I.U.P.A.C name)
or 1-cyclobutyl ethan-1-one. "



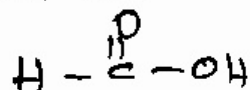
3-ethyl-cyclopentan-1-one.

Teacher's Signature : _____

Carboxylic acid

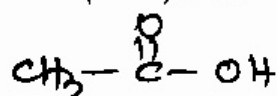


General I.U.P.A.C name: Alkanoic acid.



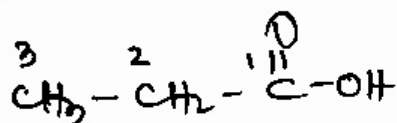
Formic acid (trivial name)

Methanoic acid (ethanoic acid)



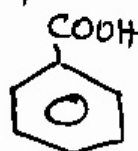
Acetic acid

(ethanoic acid)



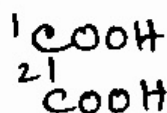
Propionic acid. (trivial name)

Propan-1-oic acid (I.U.P.A.C name)



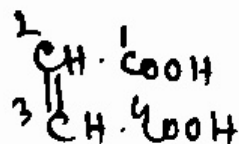
Benzoic acid (Trivial & I.U.P.A.C both name)

Dicarboxylic acids



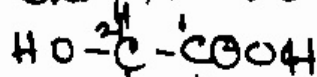
(Oxalic acid)

Ethane 1,2-dioic acid



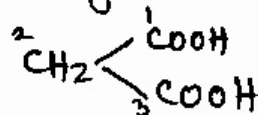
(Malic acid)

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



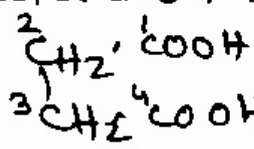
(Tartaric acid)

2,3-dihydroxy-butan-1,4-dioic acid.



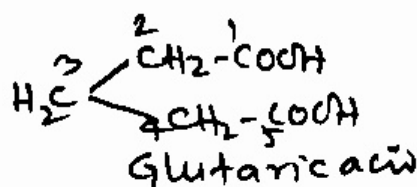
Malonic acid

(Propane 1,3-dioic acid)



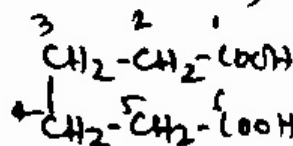
Succinic acid

(Butane-1,4-dioic acid)



Glutaric acid

(Pentane-1,5-dioic acid)



(Adipic acid)

(Hexane 1,6-dioic acid)

