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Unit - 2

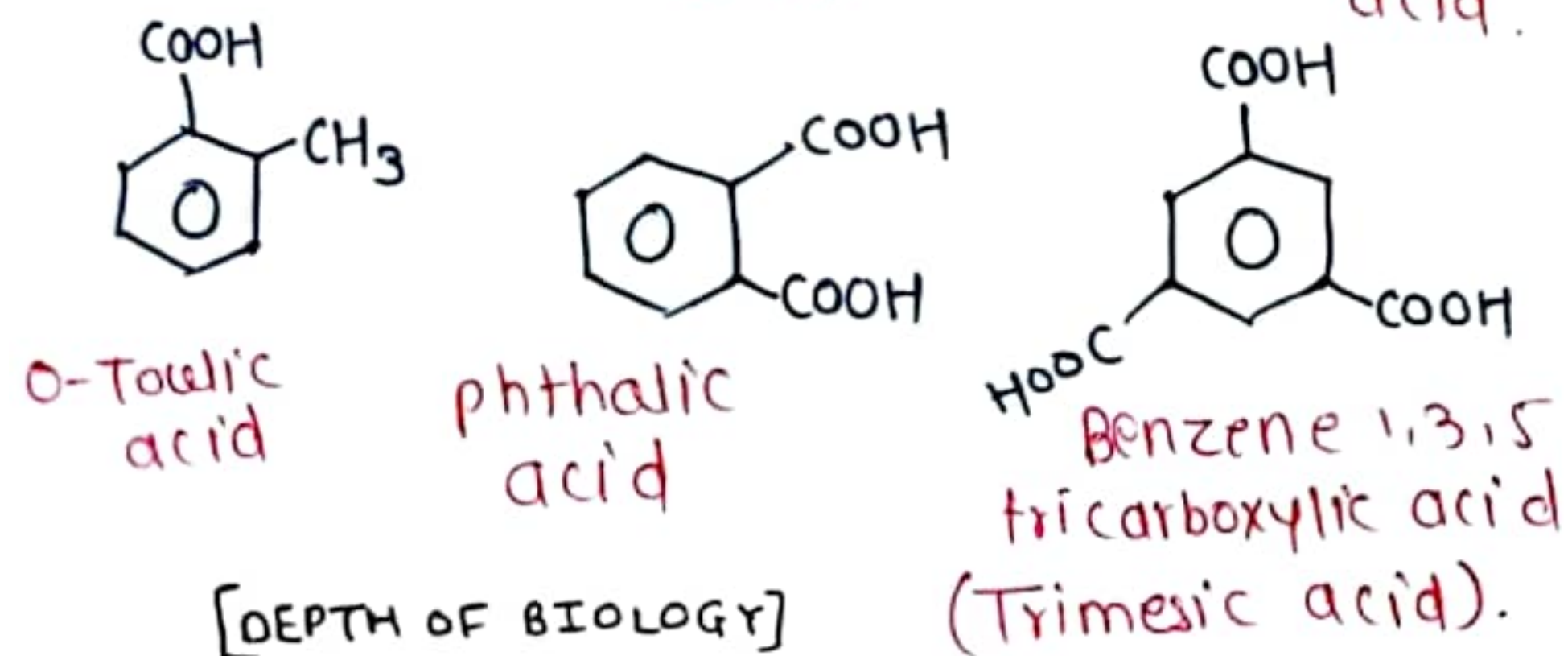
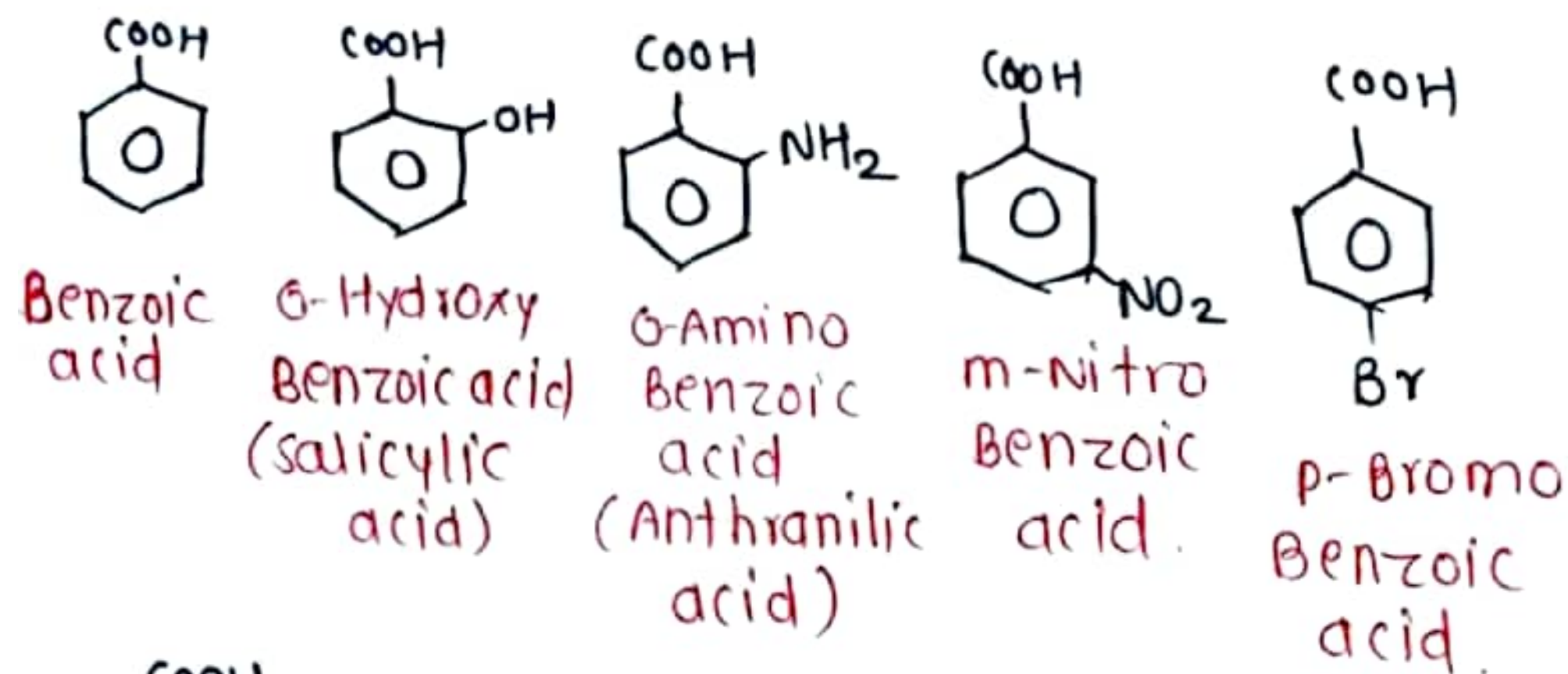
• Aromatic carboxylic acid

Acidity & effect of substituent on Acidity

- Aromatic acid are the compound in which one (or) more carboxyl groups (-COOH) are attached directly to aromatic ring.

⇒ They are named as Benzoic acid (or) its derivatives.

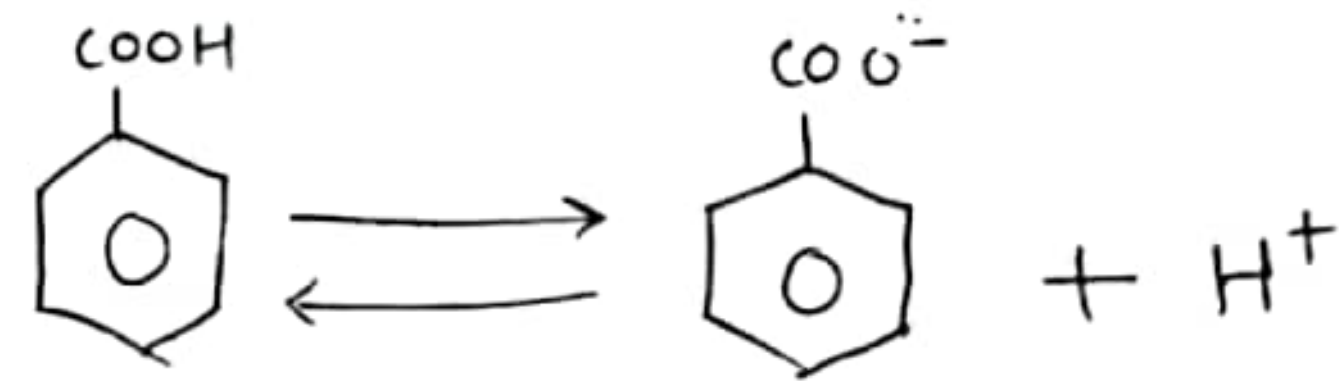
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★ Acidity of carboxylic acid:

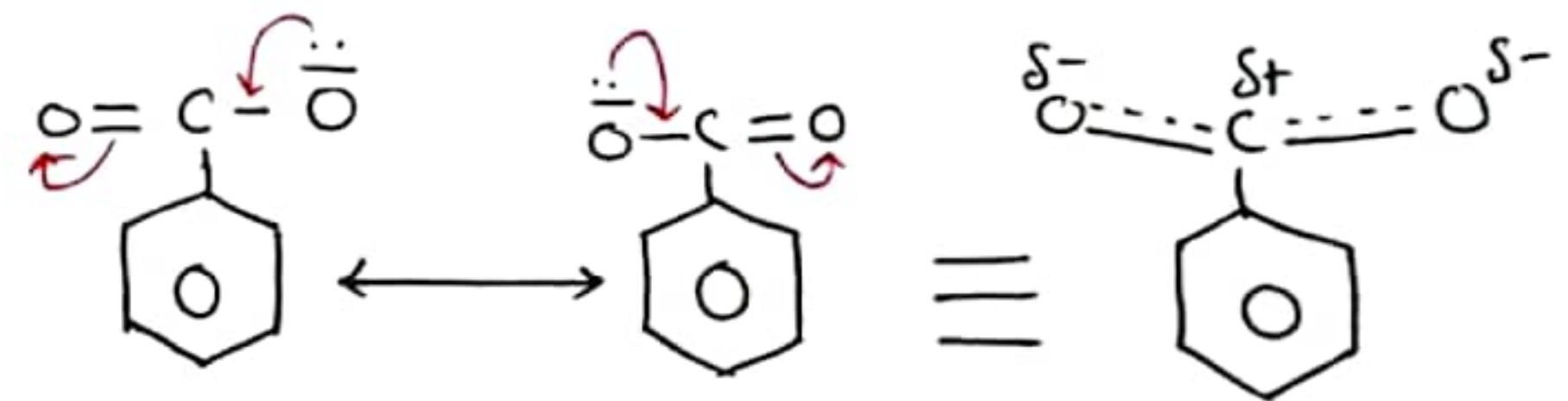
Benzoic acid undergo dissociation and gives benzoate ion & proton.



Benzoic acid

Benzoate Ion. [DEPTH OF BIOLOGY]

• These ions are Resonance stabilized.



Resonance Structure

Resonance Hybrid.

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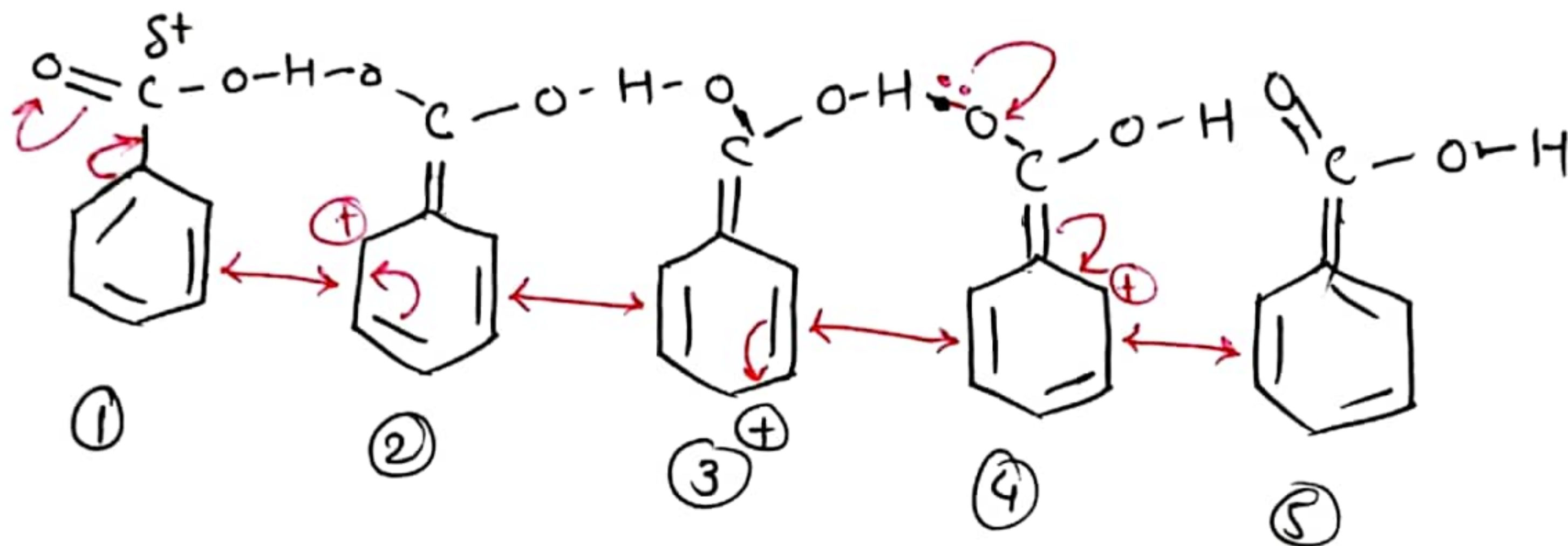
The small positive charge on carboxyl carbon will attract πe^- of the aromatic ring & thus we can say that COOH group is e^- withdrawing group.

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⇒ This will also help in the release of H^+ Ion faster, so aromatic acids are acidic in nature.



⇒ This Resonance also stabilized the Benzoate Ion in same manner.

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