PHARMACEUTICAL ORGANIC CHEMISTRY-II- BP301T

UNIT: 3 Fats and Oils

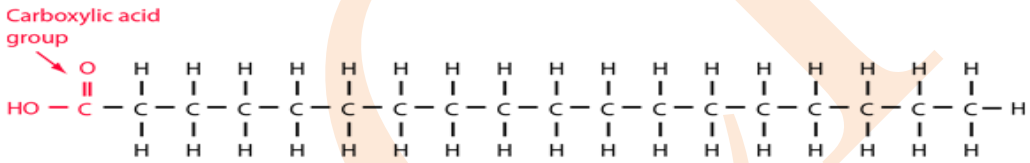
CLASS:1

TOPIC: Fats and Oils

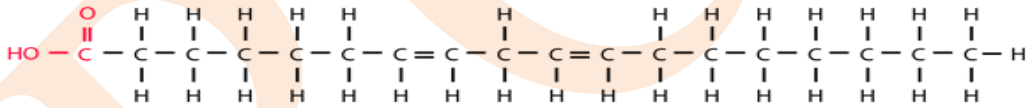
Fats:

Fats are defined as esters of fatty acids.

Fatty acids are long chain carbon atom ending with carboxylic acid as functional group.



Stearic acid, an example of a saturated fatty acid



Linoleic acid, an example of an unsaturated fatty acid

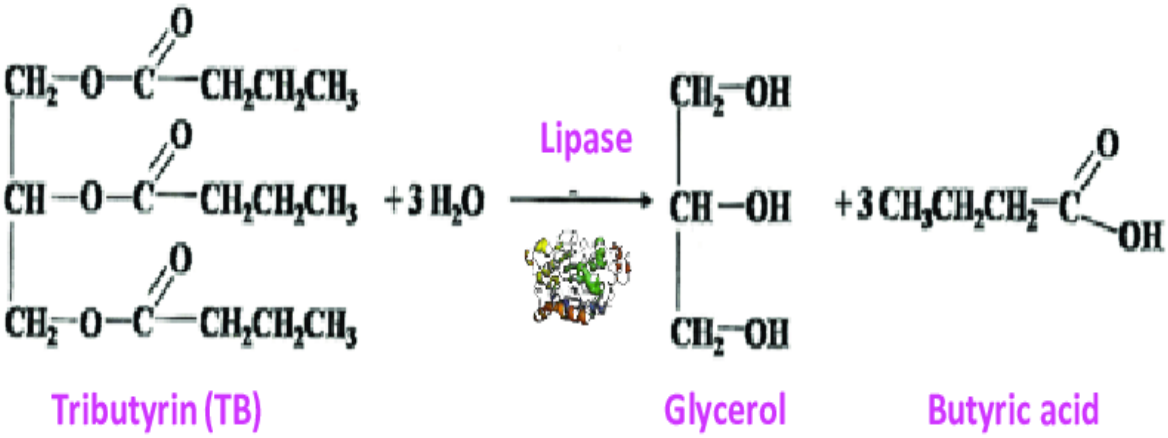
Oils:

Oils are defined as viscous liquid that occurs in crudes or seed of the plant.

Fats and oils are major part of the lipid present in the adipose tissue of mammals.

Fats and oils are ester of fatty acid and alcohol on hydrolysis it gives fatty acid and alcohols.

Fats and oils mainly the glyceryl esters of various fatty acid like palmitic acid, Stearic acid, Oleic acid, Linolenic acid.



Glycerol is reacting with 3 molecules of butyric acid to form tributyrin.

Fats	Oils
Fats are solids melt at room temperature	oils are liquids melt at room temperature
Fats containing large amount of saturated fatty acid. Ex: Stearic acid	Oils containing large amount of unsaturated fatty acid. Ex: oleic acid
Fats are melt at high temperature	Oils are melt at low temperature
Fats are animal fats	Oils are Vegetable fats
Fats do not contain double bond	Oils contain double bond
Fats are more stable.	Oils are less stable.