

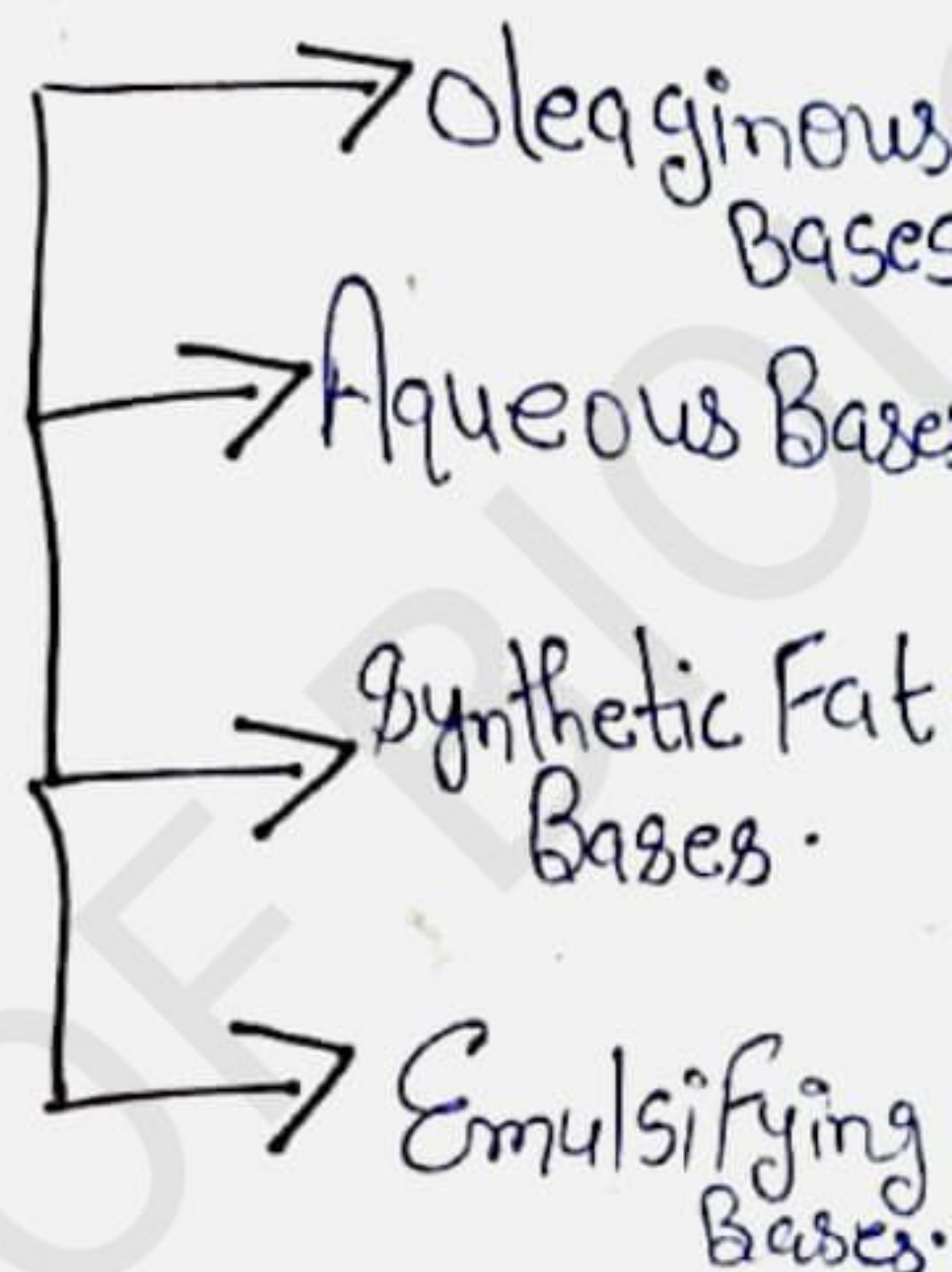
# Types of Bases

Suppos. Bases Must be

Compatible  
with diff.  
types of drugs.

Inert in Nature.

Should not  
be brittle  
during freezing.



(a) Oleaginous Bases

⇒ Advantage ⇒

- Most Widely Used.
- Consists of oil & fat.
- Not absorb water.

- ① Solid at the Temp. of  $32^{\circ}\text{C}$ .
- ② Miscible with Many Ingredient.
- ③ Melt at  $34-36^{\circ}\text{C}$  (Body Temp.).

[DEPTH OF BIOLOGY]

Disadvantage ⇒

① Polymorphism → Cocoa butter forms diff. Crystalline struc.

[DEPTH OF BIOLOGY]

Some are Stable & Some are Unstable form.

• If melted at Not more than  $36^{\circ}\text{C}$  & Slowly Cooled ⇒ It forms Stable Beta Crystal.

• If overheated it may produce Unstable Gamma & Alpha crystal } Melt at about  $15-20^{\circ}\text{C}$ .

② MOP reduced by Soluble Ingredients. ⇒ [DEPTH OF BIOLOGY]

→ If Chlral hydrate dissolve in Cocoa butter,

Leads to ↓ in the M.P to such an extent that Solidification

becomes defective. → Problem solved by adding appropriate quantity of Bee Wax.

### ③ Poor H<sub>2</sub>O absorbing Capacity . $\Rightarrow$

If they have poor water absorb ability then it is unsuitable for Aq. Soln. of drug.

### ④ High Cost . $\Rightarrow$ [DEPTH OF BIOLOGY]

⑤ Leakage from the Body  $\Rightarrow$  More trouble when Vaginal suppositories are prepared with this Base.

### ⑥ Aqueous Bases $\Rightarrow$ H<sub>2</sub>O Soluble.



## Advantage. $\Rightarrow$

- Dissolve in Body Secretion.
- Provide more prolonged release as compared to Cocoa Butter.

## DisAdvantage $\Rightarrow$ [DEPTH OF BIOLOGY]

- Highly Hygroscopic.
- Might be Crystal Growth of Medicant;  
[which Cause Irritation].
- Show Incompatibilities With Bismuth Salt.
- Difficult to prepare & Handle.
- Gelatin Incompatible with drug.

[DEPTH OF BIOLOGY]

[DEPTH OF BIOLOGY]

III

## Synthetic - Fat Bases.

- They have Superior Char. Over Theobroma oil / Cocoa Butter.
- They have Good resistance against Oxidation. [DEPTH OF BIOLOGY]
- No Lubricatory is required.
- White & colourless
- Attractive Appearance.
- These Bases are Unaffected after Overheating.

### Disadvantage $\Rightarrow$ [DEPTH OF BIOLOGY]

- ① Brittle If Cooled quickly.
- ② Less Viscosity than Cocoa Butter.
- ③ Hence we use Viscosity agent like Bentonite.

### # Emulsifying Bases.

- ① They have excellent quality than other Bases.
- ② Not rancid easily [more stable].
- ③ They don't have Irritant properties.
- ④ M.P. not affected by Overheating.
- ⑤ They have Attractive appearance. [DEPTH OF BIOLOGY]
- ⑥ Compatible with wide range of Medicaments.
- ⑦ They have Good water absorb. Capacity.