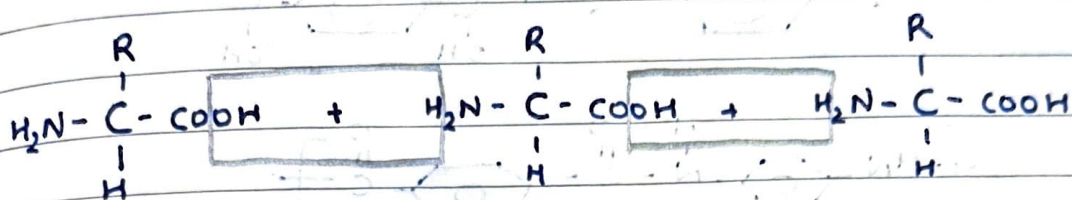
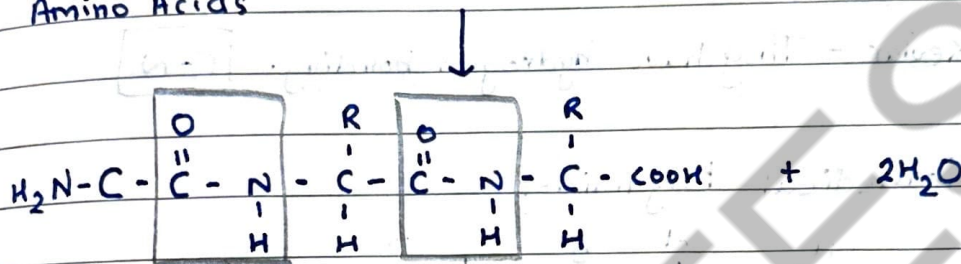


Polymerisation

⇒ Condensation Polymerisation



Amino Acids



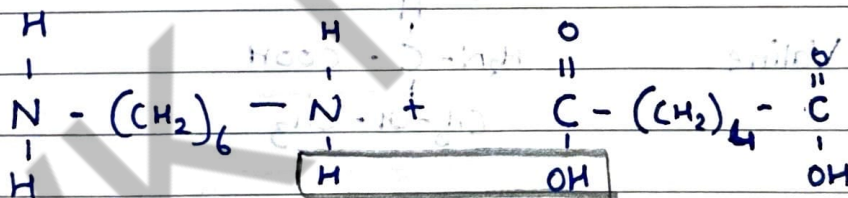
peptide bond

Tripeptide

Amide linkage

⇒ Synthetic Polyamide - Amine + Carboxylic acid.

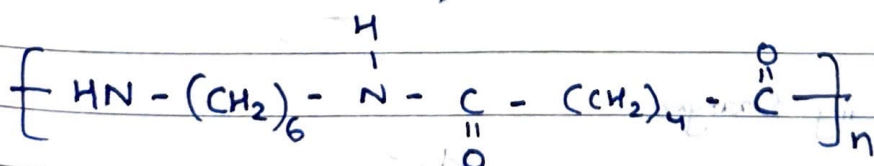
1] Nylon-6,6



1,2-diaminohexane

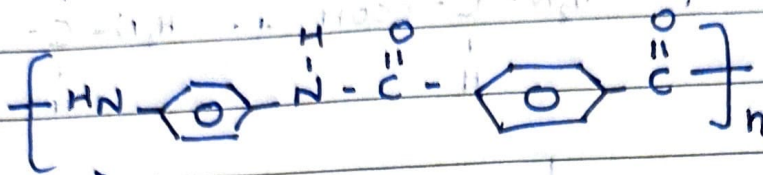
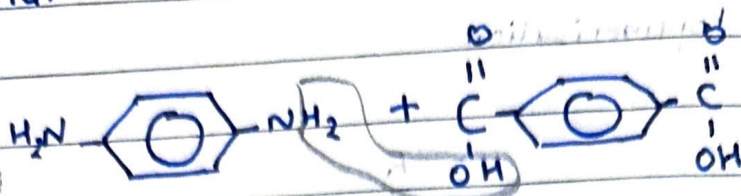
hexanedioic acid

hexane



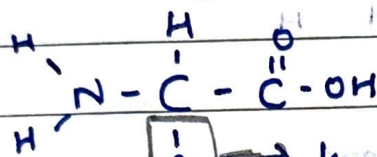
polyamide - Nylon-6,6

2. Kevlar



Kevlar - They have hydrogen bonding. C-N

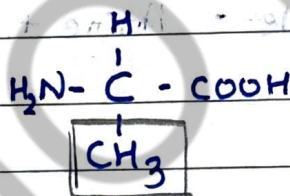
⇒ Biomedical Polyamides



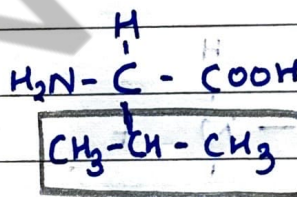
R → keeps changing depending on the protein

→ Non-polar

→ Alanine

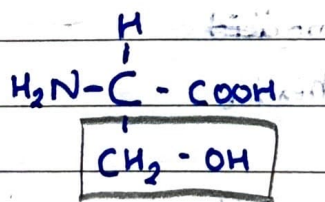


→ Valine



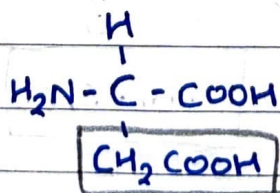
→ Polar

→ Serine

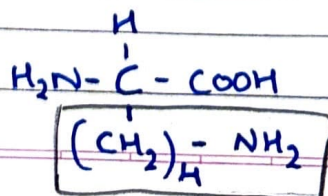


→ Electrically Charged

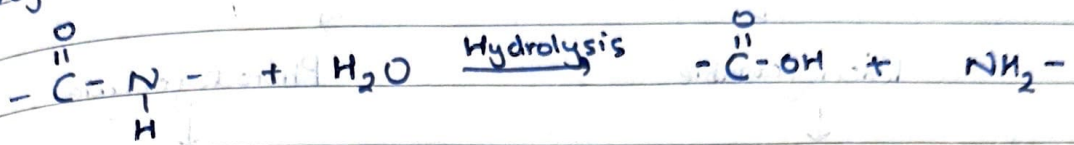
→ Aspartic



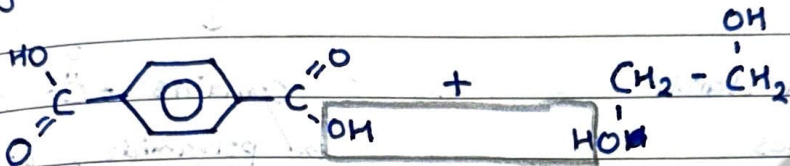
→ Lysine



⇒ Degradable Polymers

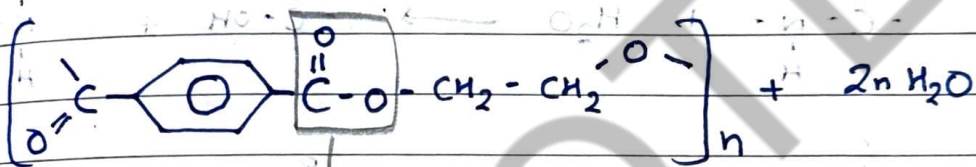


⇒ Polyester



Benzene-1,4-dicarboxylic acid

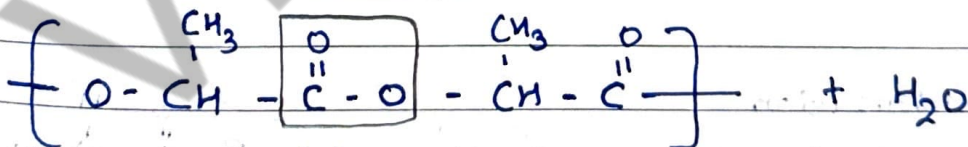
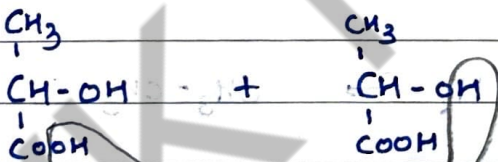
Ethane-1,2-diol



Ester Link

Terylene

⇒ Poly Lactic Acid



ester Linkage

Degradable Polymers

Biodegradable

Broken down by
microorganisms

Contain starch
granules

ex. PLA

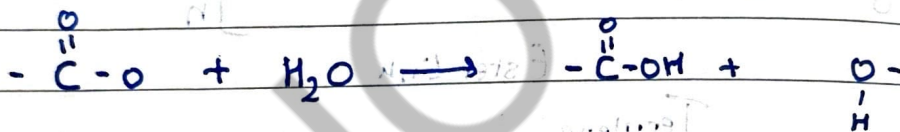
Photodegradable

Broken down by
Light

Contains $-\overset{\overset{\text{O}}{\parallel}}{\text{C}}-$

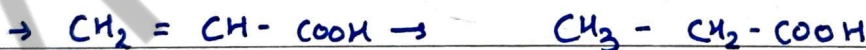
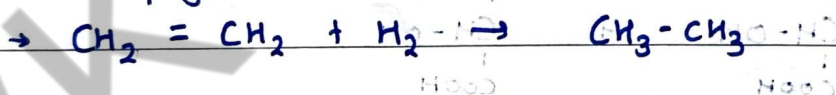
(Carbonyl group)

ex. polyamide, polyester

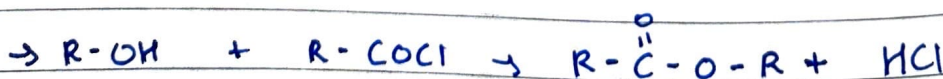
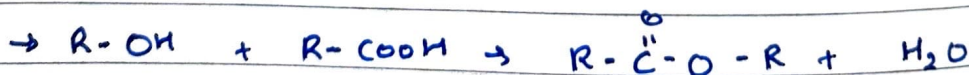
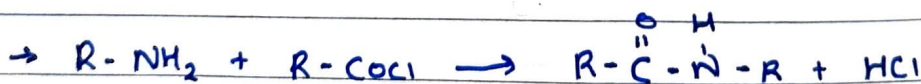
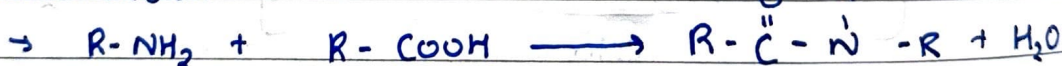


⇒ Polymer Deduction

1. Addition polymers



2. Condensation



→ Repeat Unit

