ONLINECLASS 14/09/2016

S.T.D.G.D. COLLEGE, SHAHPUR

CHEMISTRY SEM-3 MDC-3

Polymers

Polymers are large Macromolecules formed by joining many small repeating units called monomers.

Polymers formed by the polymerization of monomers.

classification of polymers.

(1) Natural polymers:- It is obtained from nature. Such as plant and animal.
eg. Starch, cellulose, proteins and natural rubber etc.

(2) Synthetic polymers:- This types of polymers made in laboratory.
eg. polythene, nylon, synthetic rubber etc.

(3) Semi-synthetic- It is Derived from natural polymers.
eg. cellulose accetate, rayon etc.

(4) Addition polymers:- It is formed by self addition of monomers without losing any small molecules.
eg. Polyethelene, PVC, teflon etc.

(5) Condensation polymers: ~~It is formed by the bifunctional or trifunctional monomers~~ It is formed by the combination of monomers with the elimination of simple small molecules like water or methanol).

eg. Nylon 6,6, Bakellite

(6) Elastomers:- Weak intermolecular forces; can be stretched.

eg. Buna-S, Buna-N, - Natural rubber.

(7) Fibres:- Strong intermolecular forces like hydrogen bonding, high tensile strength

eg. Nylon 6,6, Terylene.

(8) Thermoplastics:- Intermediate force between Elastomers and Fibres; can be repeatedly melted and reshaped - eg. Polythene, PVC

(9) Thermosetting plastics - Heavily branched or cross linked network polymers became hard on heating and cannot be reused.

eg. Bakellite