

chapter No. 17 Fibres & Plastics.

① Polymers are _____ formed by combination of large number of simple molecules.

- ① (a) micromolecules (b) macromolecules.

→ (b) macromolecules.

(② All the proteins, DNA, starch, cellulose etc. found in living beings belong to the category of polymers. These are called _____.

- (a) biopolymers (b) natural polymers

(c) Synthetic polymer (d) monomers.

→ (a) biopolymers.

(③ Rubber is natural polymer with _____ properties

→ (a) elastic.

(④ Plastics are _____ polymers.

- (a) natural (b) biopolymers (c) Synthetic

(d) non-synthetic

→ (c) Synthetic.

(⑤ Thermoplastics are called _____ polymers.

- (a) linear (b) natural (c) Synthetic (d) None of above.

→ (a) Linear.

(⑥ What are natural polymers?

→ Cotton, silk, wool, Jute etc. are the substances used for producing clothing since ancient days. All of them along with other familiar substances like fibre, rubber etc. are made of molecules belonging to a group called polymers.

⑦ what is synthetic polymers.

→ polymers like nylon, rayon, polythene and PVC made in science laboratory, belong to the category of organic polymers. These are called synthetic polymers.

⑧ what are the general characteristics of synthetic fibres?

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- cheaper than natural fibres
 - High durability
 - wrinkle free
 - can dry easily on getting wet.

⑨ Differentiate between thermoplastic & Thermosetting plastics.

Thermoplastic	Thermosetting plastic.
<ul style="list-style-type: none">- The plastic that gets softened on heating and hardened on cooling is thermoplastic.	<ul style="list-style-type: none">- The plastic which remains soft when heated during its manufacture & gets hardened permanently on cooling is thermosetting plastic.
<ul style="list-style-type: none">- Thermoplastics undergo physical change on heating.	<ul style="list-style-type: none">- Thermosetting plastics on heating undergo chemical changes along with physical changes.

⑩ what is monomer.

→ The constituent unit of polymer is called monomer.

⑪ Give the examples of natural fibres?

→ coconut husk, cotton, hemp, silk etc.

⑫ Differentiate between natural rubber & Synthetic rubber

① Synthetic rubber is harder than natural rubber.

② Synthetic rubber keep stability at high temp.

① Natural rubber is harder than natural is easily flammable.

② The elasticity of natural rubber is lower than of Synthetic rubber.

⑬ Explain structure of plastics?

→ Different plastics have different molecule structure. Thermoplastics are called linear polymers these are formed by the linear combination of monomers.

Thermosetting plastics have a structure in which the monomer units are crosslinked in different directions.

The structural difference between these two is the reason for their difference in behavior towards heat.