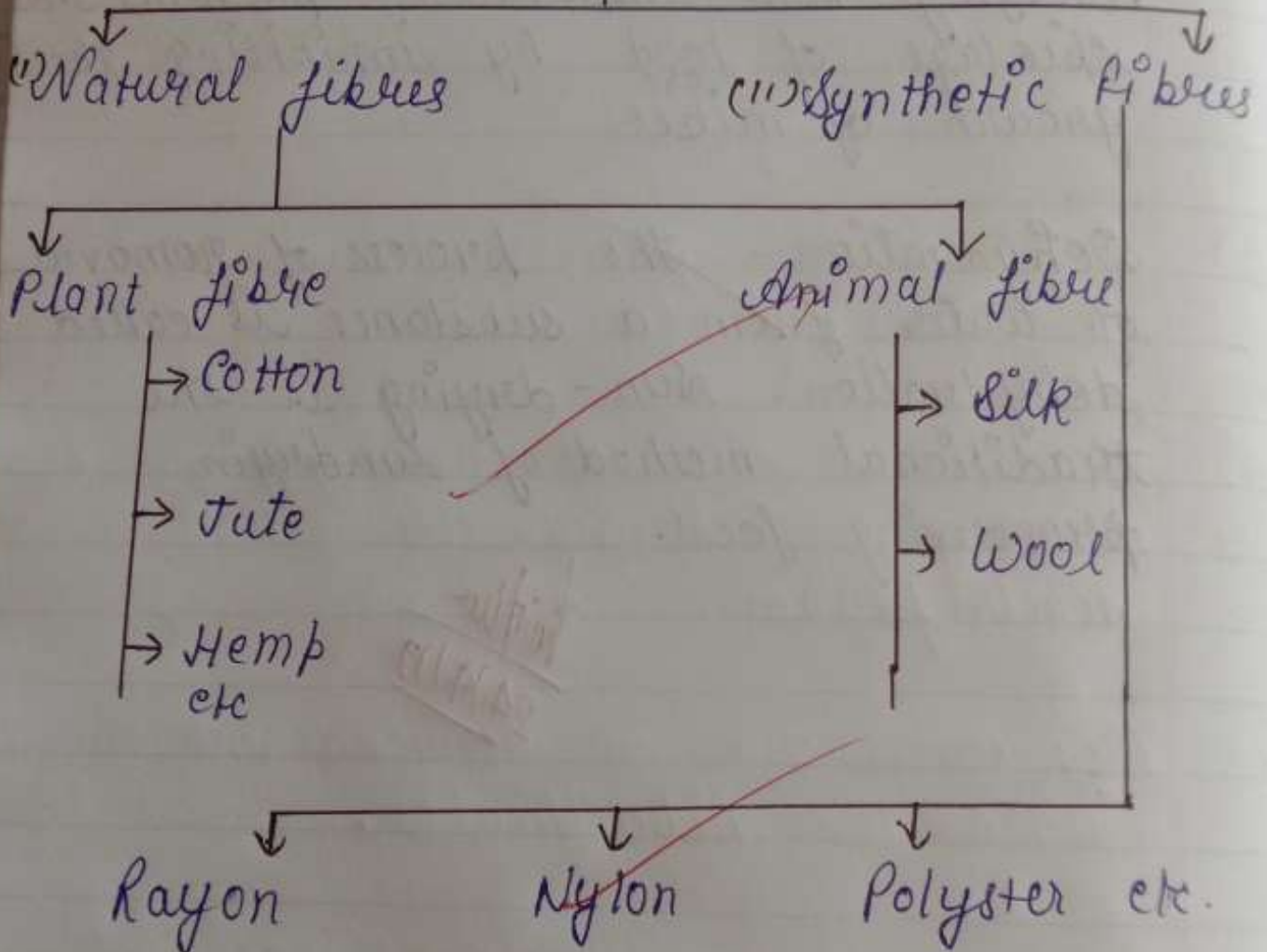


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Chapter-3

Synthetic fibres and Plastics

Notes-

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Types of fibres -

There are 2 kinds of fibres.

(I) Natural fibres - Fibres obtained from plants and animals are natural fibres. Eg- Cotton, wool, silk, jute etc

(II) Human-made fibres - Fibres obtained through different chemical processes in the industries are human made fibres.

#

Polymerisation - Polymerisation is a process of joining together in a large numbers of smaller molecules to form a large molecule

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Plastics - Plastics are the polymers made up of a very large numbers of small units joined end to end to



form a long chain.

Kinds of Plastic

1. Thermoplastic - Plastics that are easily get deformed on heating and can be bent easily are called thermoplastics. Eg- polythene, polyvinyl etc.
2. Thermosetting plastics - Plastics that once moulded into a shape do not become soft on heating and cannot be moulded again, called thermosetting plastics. etc. Eg- Bakelite etc.

Short Ans.

Q.1 What are polymers?

Ans- Polymer is very large unit formed by the combination of a large numbers of smaller molecules joined end to end by chemical bond.

Q3 Why is nylon used for making bristles of toothbrush?

Ans: Nylon used for making bristles of toothbrush because they have high tensile strength.

Q4 What is ~~5-R~~ principles?

Ans: The 5-R principles are- Refuse, Reduce, Reuse, Recycle, Recover.

Short Ans. II -

Q.1 Give differences between thermosetting and ~~the~~ thermoplastics.

Ans. ~~Thermoplastics~~

Thermosetting

1. They become soft on heating

They do not become soft on heating.

2. They can be recycled

They cannot be recycle.

3. They are less resistant to high temperature

They are more resistance to high temperature.

4. P.V.C, Polystyrene etc

Bakelite, Formica.



Q.3 (a) Why is polyester used for making water hoses for fire fighting operations.

Ans: Polyester is used for making water hoses for fire fighting because they are light weight, strong, elastic, and absorb less amount of water.

(b) Why are saucepan handles, electric plugs and switches are made up of thermosetting plastic?

Ans: They are made from thermosetting plastics because thermosetting plastic do not become soft on heating. They always maintain their size and shape even at high temperature.

Q.4 (a) Name the fibre that is used for making climbing rope.

Ans: Nylon

(b) What can we learn from John and his trainer?

Ans: John has a hidden ~~tab~~ talent but he



is scared from it but his trainer was potential for his job.

Long Ans-

Q.1 Give any 5 environmental hazards caused due to plastic.

Ans-(i) Plastic wastes do not get completely burnt and produce toxic gases, which cause air pollution.

(ii) When plastic waste is dump in water they cause water pollution.

(iii) Most of the landfills ~~are~~ are dumped by plastic wastes that cause land pollution.

(iv) During eating food wastes, they sometimes eat plastics by this, sometimes they died.

(v) Polybags are thrown here and there sometimes choke the drainage systems.

Q.2. Give reason-

(a) Cooking pans have plastic handles.

Ans: Cooking pans have plastic handles (thermo setting plastics) because they do not catch heat and always remain in same size and shape.

(b) Burning of plastics cause air pollution.

Ans: Burning of plastics cause air pollution because they secrete some toxic gases during burning, which are harmful to us.

(c) Electric wires have a plastic covering.

Ans: Electric wires have plastic covering because plastics are bad conductors of heat and electricity.

(d) Bakelite is used for making electric switches.

Due to poor conductor of electricity bakelite is used for making electric



switches.

(e) Plastics are strong and durable

Ans: Plastic are strong and durable because they can be moulded into different shapes and sizes and they are cheap.

Q.3- What are advantages of synthetic fibres? Explain.

Ans: (i) Synthetic fibres are very strong and have high tensile strength

(ii) Synthetic fibre absorb less moisture.

(iii) They are abrasion resistance, so they are strong and durable.

(iv) They are cheap.

(v) Mostly, they can be stretched more than natural fibre.

Q.5 Write any 5 - eco friendly habits.

Ans: (i) We should avoid the use of plastics

(ii) We should not use plastic bags and containers

(iii) We should use dustbins - for organic waste use green and inorganic ~~blue~~ blue.

(iv) We should not throw the plastic materials in the road.

(v) We should not dispose the plastic in sewage.

Finalised
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