

8th SYNTHETIC FIBRES AND PLASTICS [Solved Questions]

Q. Name some natural fibres?

Answer: Fibres obtained from plants or animals is called natural fibres for examples cotton, wool, silk, etc.

Q. What do you mean by synthetic fibres?

Answer: Fibres made by human beings using chemical substance is called synthetic fibre. A synthetic fibre is a chain of small unit of chemical substance joined together. These small units combine to form a large single unit called a polymer. The word 'polymer' comes from two Greek words; poly meaning many and mer meaning part/unit. So, a polymer is made of many repeating units.

Q. Name a polymer occurs naturally?

Answer: Polymers that occur naturally is cellulose. Cellulose is made up of a large number of glucose units.

Q. Name a fibre having properties similar to that of silk.

Answer: Rayon.

Q. Although rayon is obtained from a natural source, wood pulp, yet it is a man-made fibre. Why?

Answer: This is because rayon is obtained by chemical treatment of wood pulp.

Q. Why does Nylon become very popular for making clothes for mankind?

Answer: Nylon is the first fully synthetic fibre prepared from coal, water and air in 1931. Nylon fibres are strong, elastic and light. It is lustrous and easy to wash. So, it became very popular for making clothes.

Q. Is nylon fibre really so strong that we can make nylon parachutes and ropes for rock climbing?

Answer: Yes, It is because nylon thread is actually stronger than a steel wire.

Q. Why does polyester fibre quite suitable for making dress material?

Answer: Fabric made from Polyester fibre does not get wrinkled easily. It remains crisp and is easy to wash. So, it is quite suitable for making dress material. Terylene is popular polyester.

Q. Name a form of polyster which is used for making bottles, utensils, films, wires and many other useful products?

Ans: PET

Q. Name the chemical used to make polyster?

Answer: Esters are the chemicals used to make polyster.

Q. Why synthetic fibres are more popular than natural fibres?

Answer: Synthetic fibres dry up quickly, durable, less expensive, readily available and easy to maintain which makes them more popular than natural fibres.

Q. Identify the Synthetic fibre appears to resemble wool?

Answer: acrylic.

Q. is there any a disadvantage of using synthetic fibres?

Answer: Yes. Synthetic fibres melt on heating and sticks to the body of the person wearing it. We should, therefore, not wear synthetic clothes while working in in the kitchen or in a laboratory. It is non

biodegradable and causes soil pollution.

Q. What are petrochemicals?

Answer: All the synthetic fibres are prepared by a number of processes using raw materials obtained from petroleum, called petrochemicals.

Q. Plastic articles are available in all possible shapes and sizes. Give reason?

Answer: plastic is easily mouldable i.e. can be shaped in any form. Plastic can be recycled, reused, coloured, melted, rolled into sheets or made into wires.

Q. Explain the difference between thermoplastic and thermosetting plastic?

Answer: Some plastic gets deformed easily on heating and can be bent easily are known as thermoplastics. Polythene and PVC are some of the examples of thermoplastics.

some plastics which when moulded once, can not be softened by heating. These are called thermosetting plastics. For examples: Bakelite and melamine.

Q. Name a plastic used for making electrical switches and handles of various utensils?

Answer: Bakelite as it is a poor conductor of heat and electricity.

Q. Name a plastic which is used for making floor tiles, kitchenware and fabrics which resist fire?

Answer: Melamine because it resists fire and can tolerate heat better than other plastics.

Q. why plastic are used to store various kinds of material like food and chemicals?

Answer: This is because plastics do not react with water and air and not corroded easily.

Q. List some properties of plastic.

Answer: (i) Plastic is non-reactive (ii) Plastic is light, strong and durable (iii) Plastics are poor conductors

Q. Name a plastic which is used for nonstick coating on cook wares?

Answer: Teflon is a special plastic on which oil and water do not stick. It is used for nonstick coating on cook wares.

Q. Name a special type of plastic used as Fire-proof plastics?

Answer: Melamine plastic. The uniforms of firemen have coating of melamine plastic to make them flame resistant. Special plastic cookware is used in microwave ovens for cooking food.

Q. Disposal of plastic is a major problem. Why?

Answer: Since plastic is non bio degradable takes several years to decompose, it is not environment friendly and causes environmental pollution.

The burning process of the synthetic material is quite slow and it does not get completely burnt easily. In the process it releases lots of poisonous fumes into the atmosphere causing air pollution.

Q. As a responsible citizen what measures do you suggest to keep public places clean and free of plastic?

Answer: (i) Do not throw plastic bags in the water bodies or on the road.(ii) Take a cotton carry-bag or a jute bag while going for shopping. (iii) Try to minimise the use of plastic materials e.g., use a steel lunch box instead of a plastic one.