



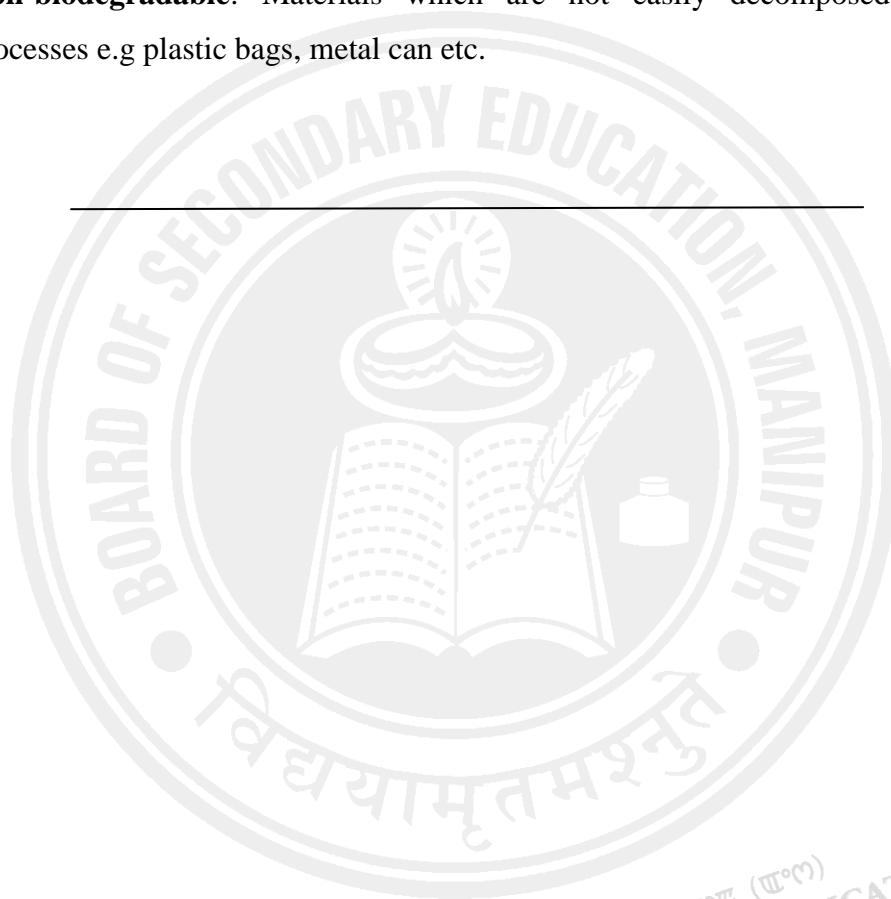
CHAPTER-3. SYNTHETIC FIBRES AND PLASTICS

Notes:

- Fibres may be synthetic (or manmade) or natural.
- Natural fibres are obtained from plants and animals.
- Synthetic or manmade fibres are made by human beings.
- Synthetic fibres and plastics like natural fibres are made of very large units called polymers. Polymers are made of many smaller units.
- **Types of Synthetic fibres:**
 - i. Rayon- Fibres obtained by chemical treatment of wood pulp. It is mixed with cotton to make bed sheets or mixed with wool to make carpets.
 - ii. Nylon-It was prepared from coal, water and air. They are strong, elastic, light, lustrous and easy to wash.
 - iii. Polyester- Fabric made from this fibre does not wrinkle easily, remain crisp and is easy to wash. Terylene and PET(Polyethylene terephthalate) are forms of polyester
 - iv. Acrylic- It is artificial wool.
- **Characteristics of synthetic fibres:**

They dry up quickly, are durable, less expensive, readily available and easy to maintain.
- Plastic is a polymer. All plastics do not have the same type of arrangement of units. It may be linear or cross-linked.
- **Types of plastics:**
 - Thermoplastics:- Plastics which get deformed easily on heating and can be bent easily.
 - Thermosetting plastics:- Plastics which when moulded once, cannot be softened by heating. E.g:- Bakelite and melamine.

- **Characteristic properties of plastics:-**
 - i. Plastic is non reactive
 - ii. Plastic is strong, light and durable
 - iii. Plastic are poor conductors of heat and electricity.
- **Biodegradable:** Materials which get decomposed through natural processes such as action by bacteria. e.g vegetable wastes, paper etc
- **Non-biodegradable:** Materials which are not easily decomposed by natural processes e.g plastic bags, metal can etc.



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