



Synthetic Fibres and Plastics

1. From which part of sheep is wool made from?
 - (a) Skin
 - (b) Toes
 - (c) Fleece
 - (d) All of the above
2. What is the process of taking out silk threads from the cocoon known as?
 - (a) Rearing
 - (b) Sorting
 - (c) Scouring
 - (d) Reeling
3. What do silk fibres consist of?
 - (a) Vitamins
 - (b) Carbohydrates
 - (c) Proteins
 - (d) Fats
4. Which of these provide compounds necessary to prepare nylon?
 - (I) Coal
 - (ii) Air
 - (iii) Water
 - (a) Only (i)
 - (b) Only (i) and (ii)
 - (c) Only (i) and (iii)
 - (d) (i), (ii) and (iii)
5. Why is nylon useful?
 - (a) It is soft, strong and light.
 - (b) It is transparent, light and easy to wash.
 - (c) It is strong, elastic and light.
 - (d) It is soft, inexpensive and strong.
6. Which of the following statements is NOT true?
 - (a) Fabric is made of yarn.
 - (b) Jute is the outer covering of the coconut.
 - (c) Polyester is a synthetic fibre.
 - (d) Silk fibre is obtained from silk worms.
7. Fruits have characteristic smells. Which of these chemicals is responsible for it?
 - (a) Yeast
 - (b) Alcohol
 - (c) Cellulose
 - (d) Esters
8. Which of the following articles is made by using only man-made substances?



9. Which of the following is made from coconut fibre?
 - (a) Sweaters
 - (b) Shoes
 - (c) Mattresses
 - (d) Sarees

- 10.** Which of the following statements is NOT true?
 (a) Polymers occur in nature.
 (b) Nylon is used in the making of parachutes.
 (c) Cellulose is made up of glucose units.
 (d) Nylon thread is weaker than cotton thread.
- 11.** PVC is an example of
 (a) plastic.
 (b) thermoplastic.
 (c) thermosetting plastic.
 (d) acrylic.
- 12.** Which of the following properties of plastic makes it most convenient for use?
 (a) It is non-reactive.
 (b) It is light, strong and durable.
 (c) It is easily remouldable.
 (d) All of the above
- 13.** Which of the given materials is used to prepare synthetic fibres like polyester and acrylic?
 (a) Wood pulp (b) Coconut fibres
 (c) Petrochemicals (d) Paper pulp
- 14.** Match the entries in Column I with those in Column II.

	Column-1		Column-11
(a)	Silk	(i)	Rope
(b)	Nylon	(ii)	Sweater
(c)	Acrylic	(iii)	Bottle
(d)	Plastic	(iv)	Saree

- (a) a - 1, b - 3, c - 4, d - 2
 (b) a - 2, b - 4, c - 3, d - 1
 (c) a - 3, b - 1, c - 4, d - 2
 (d) a - 4, b - 1, c - 2, d - 3

- 15.** Which of the following is non- biodegradable?
 (a) Plastic (b) Cotton
 (c) Paper (d) Left-over food
- 16.** By which of these processes is polythene produced?
 (a) Isomerization (b) Polymerisation
 (c) Hydrogenation (d) All of the above
- 17.** Which of the following plastic products can be remoulded?
 (a) Bakelite
 (b) Melamine
 (c) Polythene
 (d) Polycot
- 18.** Which of the following products cannot be decomposed easily?
 (a) Acrylic
 (b) Polythene
 (c) Plastic
 (d) All of the above

- 19.** Why is plastic coated with melamine?
 (a) It becomes a good conductor of heat.
 (b) It becomes strong and flexible.
 (c) It becomes a fire proof plastic.
 (d) It is remouldable.
- 20.** Which of the following is used for making terylene fibres?
 (a) Wood pulp (b) Esters
 (c) Acrylic (d) Paper pulp
- 21.** To which of the following does the 4R principle apply the most?
 (a) Synthetic fibre
 (b) Natural fibre
 (c) Metal
 (d) Plastic
- 22.** Which of the following statements is NOT true?
 (a) Thermosetting plastics are bad conductors of heat and electricity.
 (b) Thermoplastics are good conductors of heat and electricity.
 (c) Plastics do not get corroded easily.
 (d) Plastic is also a polymer.
- 23.** Which of the following is a property of thermo setting plastic?
 (a) Flame resistant
 (b) Non - corrosive
 (c) Mouldable
 (d) All of the above
- 24.** Which of the following is NOT a natural polymer?
 (a) Natural rubber (b) Polyester
 (c) Protein (d) Starch
- 25.** Which of the following fabrics is made by mixing two types of fibres?
 (a) Cotton (b) Polywool
 (c) Rayon (d) Nylon
- 26.** Which of the following is purely a synthetic fibre?
 (a) Rayon
 (b) Nylon
 (c) Cotton
 (d) Flax
- 27.** Which of the following differences regarding thermoplastics and thermo- setts is/are true?

	Thermoplastics	Thermosetts
(i)	Soft	Hard
(ii)	Can withstand heat	Cannot withstand heat
(iii)	No cross linkages	Cross linkages are present

- (a) Only (i)
 (b) Only (i) and (ii)
 (c) Only (i) and (iii)
 (d) (i), (ii) and (iii)

- 28.** Which of the following properties of nylon are most convenient for its use?
(a) It is soft, strong and heavy.
(b) It is strong, elastic and light.
(c) It is soft, inexpensive and strong.
(d) It is expensive, soft and light.
- 29.** Which of the following is an example of a heavily cross linked polymer?
(a) Melamine (b) Polythene
(c) Nylon (d) Polyester
- 30.** How does the burning of synthetic polymers such as plastic pollute the environment?
(a) By releasing smoke and toxic gases
(b) By releasing water vapour and haze
(c) By releasing water vapour and smoke
(d) By forming smog and rain
- 31.** Which of the following is a property of thermoplastics?
(a) They do not bend.
(b) They do not get deformed easily.
(c) They are resistant to most of the chemicals.
(d) They are made up of long polymer chains with strong bonds.
- 32.** Which of these clothes dry faster in rainy season?
(a) Cotton (b) Wool
(c) Polyester (d) Silk
- 33.** In which of these clothes should you wear while cooking in the kitchen?
(a) Rayon (b) Cotton
(c) Polyester (d) Polycot
- 34.** By what name is artificial (man-made) wool known as?
(a) Rayon (b) Acrylic
(c) Polycot (d) Polyester
- 35.** What is the best method to avoid pollution by using plastic bags?
(a) Burying the plastic bags in the soil.
(b) Using bags made of biodegradable material.
(c) Throwing the plastic bags into the river.
(d) Burning the plastic bags in a rubbish dump.

Answers With Solutions

1. (c) Wool is made from fleece (hair) of sheep or yak.
2. (d) Reeling is the extracting of silk threads from cocoons.
3. (c) The caterpillar secretes a protein called fibroin which hardens on exposure to air and become silk fibres.
4. (d) Nylon is the first, fully, synthetic fibre obtained from coal, air and water.
5. (c) Nylon fibre is strong, elastic and light. It is lustrous and easy to wash. So, it became very popular for making clothes.
6. (b) Jute is made from the inner fibre of the stem. Coconut fibre is the outer covering of the coconut.
7. (d) Esters are responsible for the characteristic smell of fruits.
8. (b) Spectacles are made up of glass and plastic, which are man-made.
9. (c) Mattresses are made from coconut fibres.
10. (d) The nylon thread is stronger than the cotton thread.
11. (b) Thermoplastic is a type of plastic that can be softened or bent easily by heating and hardened by cooling. e.g., PVC, Polythene etc.
12. (d) Plastic is non-reactive, light, strong and durable. It is easily remouldable. All these properties make plastic most convenient for its use.
13. (c) Most of the synthetic fibres are prepared from petrochemicals.
14. (d) The correct combination is:
a - 4, b - 1, c - 2, d - 3

(i)	Silk	Saree
(ii)	Nylon	Rope
(iii)	Acrylic-	Sweater
(iv)	Plastic	Bottle

- 15.** (a) Plastic/ metal cans, etc., are the materials which cannot be decomposed by natural processes. Hence, they are non - biodegradable.
- 16.** (b) Polythene is formed by the polymerisation of ethylene. Polymerisation is a process in which molecules of the same or different compounds are joined together to form a long chain of molecules called polymers.
- 17.** (c) The plastics which can be remoulded are called thermoplastics.
e.g., Polythene, PVC etc.
- 18.** (d) All synthetic products/chemicals are non-biodegradable and cannot be decomposed easily.
- 19.** (c) Plastic when coated with melamine becomes fire proof. These materials are used for preparing fabrics for fire-men, and making kitchen ware etc.
- 20.** (b) Terylene fibres are made up of chemical substances called esters.
- 21.** (d) The 4R principle i.e., reduce, reuse, recycle and recover applies for plastic.
- 22.** (b) Thermoplastics are bad conductors of heat and electricity.
- 23.** (d) Plastic as such is not flame resistant but thermosetting plastics resist fire, non- corrosive and mouldable. They can be used for making kitchen ware.
- 24.** (b) Natural polymers are polymers produced by living organisms. They include natural rubber and natural food stuffs. Polyester is a synthetic fibre (not a natural polymer).
- 25.** (b) Polywool is a mixture of polyester and wool.
- 26.** Nylon is made up of petrochemicals and is purely a synthetic fibre. Rayon is made of wood pulp. Cotton and flax are natural fibres.
- 27.** (c) Differences (i) and (iii) are true of thermoplastics and thermosetts.
- 28.** (b) Nylon is strong, elastic and light.

- 29.** (a) Melamine is an example of thermoset plastics. Thermoset plastics are heavily cross-linked polymers and hence, they are rigid.
- 30.** (a) The burning of synthetic polymers release smoke and toxic gases which pollute the environment.
- 31.** (c) Thermoplastics are resistant to most of the chemicals. They are easy to burn, bend and do not conduct electricity and they consist of linear polymer chains which are linked by weak attractive forces.
- 32.** (c) Synthetic fibres like polyesters absorb less water and dry up quickly.
- 33.** (b) Synthetic fibres catch fire easily and melt on heating. Therefore, it is not safe to wear clothes made of synthetic fibres. So, cotton clothes are best and safe.
- 34.** (b) Acrylic is an artificial wool.
- 35.** (b) The use of biodegradable bags is the best method to avoid pollution.