

**CLASS VIII – SCIENCE – CHAPTER 03**

**SYNTHETIC FIBRES AND PLASTICS**

Name:

Date:

01. Polyester is a long chain polymer of a chemical substance called: -  
(a). aldehyde (b). ester (c). alcohol (d). ethene
02. Which of the following represent the smallest units of a polymer :-  
(a). tetramer (b). dimer (c). monomer (d). octamer
03. A regenerated synthetic fiber is :-  
(a). rayon (b). nylon (c). terylene (d). polythene
04. The first fully synthetic fiber is :-  
(a). rayon (b). nylon (c). Acrylic (d). Polyester
05. A synthetic polymer called polythene is prepared from:-  
(a). Ethylene (b). Ethene (c). Ethanol (d). Ethane
06. One of the most common form of polyester is :-  
(a). artificial silk (b). tetrafluoroethylene (c). polyvinyl chloride (d). polyethylene terephthalate
07. All are polyester fibres except:-  
(a). Melamine (b). Terylene (c). Decron (d). Terene
08. The polymers in which smaller units are linked to each other in straight arrangement are called :-  
(a). cross-linked polymers (b). branched polymers (c). linear polymers (d). all the above
09. A plastic which can be softened on heating and moulded repeatedly is called :-  
(a). thermoplastic (b). thermosetting plastic  
(c). thermolabile plastic (d). both b & c
10. The synthetic plastic used for making insulation cover in electrical wires/cables is :-  
(a). Bakelite (b). Melamine (c). Polyvinyl chloride (d). Polystyrene
11. Plastics are :-  
(a). cheaper (b). durable (c). nonreactive (d). all the above
12. Which of the following is not a part of 4R's formula :-  
(a). reduce (b). recycle (c). recover (d). reinvent
13. Synthetic plastics lead to :-  
(a). water pollution (b). air pollution  
(c). solid waste pollution (d). all the above
14. Rayon is made from :-  
(a). wood pulp (b). bark of the tree (c). dry leaves (d). petroleum products
15. Acrylic fibers are advantageous over :-  
(a). cotton (b). wool (c). silk (d). jute
16. The purest natural form of cellulose is :-  
(a). rayon (b). cotton (c). wool (d). silk
17. Rayon clothes are comfortable to wear in:-  
(a). winters (b). rainy season (c). both a & b (d). summers
18. The first fully synthetic plastic was :-  
(a). bakelite (b). melamine (c). Teflon (d). polythene
19. The non stick coating on pans and other cooking utensils is made from :-  
(a). rayon (b). teflon (c). melamine (d). PVC

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**Q1.** Match the following

**(A). Fiber**

- (a). Jute
- (b). Polyester
- (c). Rayon
- (d). Acrylic
- (e). Nylon

**Articles made**

- i) bristles for brushes
- ii) surgical dressings
- iii) bags
- iv) sails for boats
- v) sweaters

**(B). Fiber**

- (a). Cotton
- (b). Nylon
- (c). Rayon
- (d). Polyester
- (e). Acrylic

**Property/ characteristic**

- i) silky texture
- ii) plant fiber
- iii) feels like wool
- iv) does not absorb water
- v) absorbs very little water

**(C).**

- (a). Plastics
- (b). Cotton cloth
- (c). Nylon
- (d). Polyester
- (e). Bakelite

- i) first fully synthetic fiber
- ii) PET bottles
- iii) non biodegradable
- iv) thermosetting plastic
- v) biodegradable

**(D). Synthetic plastic**

- (a). Polyethylene
- (b). PVC
- (c). Polystyrene
- (d). Teflon
- (e). Melamine

**Property/characteristic**

- i) quite inert
- ii) lighter than polythene
- iii) high polish polymer
- iv) tougher than polythene
- v) impermeable to water

**(E). Synthetic**

- (a). Bakelite
- (b). Melamine
- (c). Teflon
- (d). Polystyrene
- (e). PVC

**plastic use/article made**

- i) thermocole
- ii) shoes
- iii) combs
- iv) unbreakable dinner set
- v) nonstick cookware

**Q02.** Fill in the blanks:-

- (a). Rayon is prepared from \_\_\_\_\_ .
- (b). Polythene is prepared from \_\_\_\_\_ .
- (c). Nylon is prepared from simple chemicals obtained from \_\_\_\_\_ .
- (d). Polyester is made from \_\_\_\_\_ products.
- (e). \_\_\_\_\_ is called a regenerated fiber.
- (f). \_\_\_\_\_ fibers are less expensive than natural fibers.
- (g). Synthetic fibers are not good absorbers of \_\_\_\_\_ .
- (h). In \_\_\_\_\_ weather clothes made of synthetic fiber stick to the body.
- (i). Synthetic fibers catch fire easily so they are \_\_\_\_\_ .

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- (j). Clothes made of synthetic fibers should not be worn in \_\_\_\_\_.
- (k). \_\_\_\_\_ burns vigorously and leaves little ash.
- (l). \_\_\_\_\_ burns slowly with the smell of burning hair.
- (m). \_\_\_\_\_ shrinks on burning producing black smoke.
- (n). \_\_\_\_\_ burns readily with the smell of burning paper.
- (o). \_\_\_\_\_ shrinks if burnt and forms a black bead along with sooty flame.

**Q03.** State whether the following statements are true or false: -

- (a). Rayon is made from methanol.
- (b). Nylon is also known as artificial silk.
- (c). Polyester is prepared from petroleum products.
- (d). Clothes made from acrylic fibers are low in cost than those made from wool.
- (e). PVC is a thermoplastic.
- (f). A polymer is made up of repeating units called monomers.
- (g). Structure of a polymer can be compared to that of a gemstone in a ring.
- (h). Polymerisation is the process of joining together of polymers to form a monomer.
- (i). Polymers can have a cross- linked arrangement of molecules.
- (j). Cellulose is a synthetic polymer.

**Q04.** Pick the odd word out of the following:

- (a) Terene, Terylene, Acrylic, Decron, Terycot.
- (b) bakelite, melamine, polyethylene, polyvinyl chloride, polywool.
- (c) Nylon, Teflon, Terycot, Polyester, Acrylic.

**Q05.** Define Polymerisation?

**Q06.** For making synthetic polymers where from we get small molecules?

**Q07.** What are plant and animal fibers?

**Q08.** What are plastics and how are they classified?

**Q09.** How did NYLON fabric got this name?

**Q10.** Why is rayon called a regenerated fiber?

**Q11.** Describe the need for making polymers?

**Q12.** Define a thermosetting plastic and give examples.

**Q13.** Why has government banned the use of polythene bags?

**Q14.** How are plastics good as well as bad to us?

**Q15.** How can we contribute to reduce hazards of plastics?

**Q16.** Name the components of blended fibers of which the following cloth is made: -

**Q17.** Name the arrangement of small molecules as shown in the below representation.



**Q18.** Which synthetic fiber is the following cloth made up of?



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**Q19.** Which synthetic fiber is the following cloth made up of: -

