**Chapter 13**

**Synthetic Fibres and Plastics**

**(Deleted from the syllabus only for this year 2020-21)**

1. The student should take different fabrics present in his home and soak them in a glass full of water for about 5 minutes. Remove them from the glasses and put them in sun to dry up. Observe the amount of water remaining in each glass and observe the time taken by each piece of fabric to dry up. Note down your observation and give reason for your observation.
2. Differentiate between natural fibres from synthetic fibres.
3. Fill in the blanks
4. Jute, silk and cotton are \_\_\_\_\_\_\_\_\_\_\_.
5. The monomers join in a large number to form a long chain polymer known as \_\_\_\_\_\_\_\_.
6. \_\_\_\_\_\_\_\_ is fibre having properties similar to that of silk and is obtained by chemical treatment of wood pulp.
7. \_\_\_\_\_\_\_\_ is known as the wonder polymer.
8. Nylon is used in many military applications like making of \_\_\_\_\_\_\_\_, parachutes.
9. Terylene is also elastic, highly durable,\_\_\_\_\_\_\_\_ resistant and moth \_\_\_\_\_\_\_\_.
10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are poor conductors of heat and electricity.
11. Plastics having cross-linked arrangement of molecules are known as \_\_\_\_\_\_\_\_ plastics.
12. State whether given statements are true /false
13. Jute, silk and cotton are synthetic fibres.
14. PVC, Polythene, nylon are well known examples of thermoplastics.
15. Since Bakelite is poor conductor of heat and electricity it is used for electric switches and handle of cooking utensil
16. Terylene is used for making containers for packaging food and soft drinks.
17. Polymerisation is the process by which polymer is made.
18. Give reason for the following
19. Rayon is also sometimes also called regenerated fibre.
20. Nylon is used for making seat belts, tyre cords and seat belt.
21. Terylene is used for making sails of the boat and rain coat.
22. Acrylic fibres are used for making blankets.
23. Synthetic fibres cause pollution.
24. Define the following
25. Biodegradable
26. Non- biodegradable
27. Thermoplastics
28. Polymerisation
29. I took some nylon ropes when I went for rock climbing. Can you suggest why I selected nylon rope instead of rope made of cotton or jute?
30. List down the various synthetic fibres used by us.
31. State 4 advantages of synthetic fibre
32. Write down the 2 uses of the following
33. Rayon
34. Nylon
35. Terylene
36. Poly Ethene Tetraphthalate
37. Acrylic fibre
38. Even though synthetic fibres have lot of uses we are advised to use them in restricted manner, justify.
39. Differentiate thermoplastics from thermosetting plastics.
40. Why is synthetic plastic used very often?
41. Give 2 examples of
42. Biodegradable material
43. Non biodegradable material
44. What is damage caused by plastic waste?
45. How can we control the damage caused by plastic waste?
46. What is the 4 R’s principle?
47. Why are garments made of Rayon comfortable in summers while acrylon is not?
48. Why is melamine coated in the uniform of firemen?
49. Name the special plastic used for providing non-stick coating on cookware and state why it is used?
50. Why so much stress is being given to stop the use of plastic?

**Chapter 14**

**Reproduction in Animals**

1. Why is reproduction considered as one of the important characteristic of life?
2. Differentiate between asexual and sexual reproduction.
3. Fillin the blanks
4. \_\_\_\_\_\_\_\_\_\_\_\_ is usually observed in unicellular organisms.
5. Individuals that produce both male and female gametes is known as\_\_\_\_\_\_\_\_\_\_\_ animals.
6. \_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_ reproduces by budding.
7. \_\_\_\_\_\_\_\_\_\_\_\_\_ fertilisation is when the fusion of gametes occurs in water.
8. Testes are present in a sac called \_\_\_\_\_\_\_\_\_\_\_\_\_.
9. The last part of the urethra is surrounded by a muscular structure called the \_\_\_\_\_\_\_\_.
10. Fertilisation takes part in the initial part of the \_\_\_\_\_\_\_\_.
11. The foetus when born is called an\_\_\_\_\_\_\_.
12. In \_\_\_\_\_\_\_\_\_\_\_\_ animals, the embryo develops inside the body of the mother.
13. \_\_\_\_\_\_\_\_\_\_ early developmental stage of an unborn organisms.
14. State whether the given statements are true/false
15. Fish, amphibians, reptiles, birds and insects are oviparous animals.
16. The fertilisation of male and female gametes takes place in the uterus.
17. The fluid having sperms in it is called the penis.
18. Frog has external fertilisation and external development.
19. Plasmodium reproduces by process - Multiple fission.
20. Define the following terms
21. Asexual reproduction
22. Budding
23. Hermaphrodite animal
24. Metamorphosis
25. Viviparous animals
26. Parthenogenesis
27. Multiple choice questions
28. An organism that reproduces by binary fission
29. Amoeba b)Plasmodium c) Hydra d) Yeast
30. The organisms in which both fertilisation and development take place within the female body are said to have
31. Internal fertilisation and development b) External fertilisation and development c) Internal fertilisation and external development d) none
32. Ovaries produce hormones that
33. Control the production of ova b) control the development of testes

c)development of oviduct d) none

D. In which animal does the metamorphosis begins with development of hind legs followed by the front legs

a) frog b) butterfly c) silk worm d) none of the above

7. Give reasons for the following

1. The intestine of the frog shortens during metamorphosis.
2. The child has some characteristics of the father and some of the mother.
3. Hen is an example of animal having internal fertilisation and external development.
4. The individual or young ones produced as result of asexual reproduction are genetically identical to the parent.
5. Earthworm is an example of hermaphrodite animal.
6. The male gamete has a tail.
7. Complete the flow chart Type Example of animals

Binary fission

Asexual Reproduction

Hydra

1. Differentiate between the following
2. Direct and indirect development
3. Uni-parental and bi-parental reproduction
4. Internal and external fertilisation
5. Foetus and embryo
6. Oviparous and viviparous animals
7. What protects the egg of hen from the harsh condition?
8. Draw a labelled diagram of life cycle of frog.
9. Give one word for the following
10. The part of female reproductive system where fusion of gamete takes place:
11. The fluid that has sperms in it:
12. Fusion of gametes takes place outside the body of animal:
13. Animals that give birth to young ones:
14. Mode of reproduction that requires no fusion:
15. Period during which development takes place inside the egg:
16. How is fertilisation of a frog different from that of cow?
17. Enlist various changes that an egg undergoes to become an adult frog.
18. Complete it
19. Male reproductive system consist of pair of (i)\_\_\_\_\_\_\_\_ present in sac ii)\_\_\_\_\_\_\_\_\_\_\_\_ . iii)\_\_\_\_\_\_\_ develop in testis and are present in fluid called iv)\_\_\_\_\_\_\_\_\_\_\_\_\_. Sperms pass from the testes the v)\_\_\_\_\_\_\_\_\_\_\_ to the urethra which is surrounded by muscular structure called the \_\_\_\_\_\_\_\_\_\_.
20. Female reproductive system consists of a pair of \_\_\_\_\_\_\_\_\_\_\_, a pair of \_\_\_\_\_\_\_\_\_\_, uterus and \_\_\_\_\_\_\_\_\_\_\_\_.
21. How an embryo develops from a zygote into an infant?
22. a) How many sperm can fuse with one ovum?

b)What happens if an ovum splits after being fertilised?

1. What do you understand by IVF?
2. Name the different categories animals can be classified on the basis of the sites of fertilisation and development and give one example of each type.
3. What will happen if the oviduct of female is blocked or cut?
4. What do you understand by Parthenogenesis? Name 2 organisms where it occurs naturally.
5. Show how budding occurs in Hydra with help of diagram.
6. In some animals the young ones initially very different from their adult, justify this statement with help of example.
7. Write down the functions of the following
8. Uterus
9. Hormones produced by ovary
10. Shell of egg of a hen
11. Penis
12. Bud of hydra