BIJENDRA PUBLIC SCHOOL, PURNEA

Class - 7

Subject - SCIENCE

Chapter - 3 FIBRE TO FABRIC : ANIMAL FIBRES

A. Very Short Answer Questions:

1. Which of the two cotton or wool is a proteinous fibre?

Ans. Wool is a proteinous fibre.

2. Which of the following is suitable for summer wear?
Nylon, Polymer, Cotton, Silk

Ans. Cotton

3. Why is the sheep after shearing dipped into an antiseptic.

Ans. After the shearing the sheep is immediately dipped into an antiseptic to prevent any skin infection.

4. Which property of silk makes it so attractive?

Ans. The lustrous appearance of silk makes it so attractive.

5. What is the process of separating silk filaments from the cocoons called?

Ans. The process of separating silk filaments from the cocoons is called reeling of silk.

B. Short Answer Questions:

1. Why is wool used for making winter clothing?

Ans. Wool fibre is highly porous and the air in the pores acts as an insulator and does not allow the body heat to go out so it is used for making winter clothing.

2. What treatment is given to the sheared hair of sheep in
   i. Scouring
   ii. Sorting
   iii. Carding?

Ans. The treatment i. e. given to the sheared hair of sheep in:-
   i. Scouring - In this process, grease, dirt and dust are removed from the sheep hair.
   ii. Sorting - In this process, the small fluffy fibres called burrs are picked out and sent for reprocessing.
   iii. Carding - In carding the selected curly wool fibres and straightened by passing through rollers.

3. What is sericulture?

Ans. Rearing of silk moth is called sericulture.

4. What are occupational hazards?

Ans. The people doing sorting work may get infected by anthrax bacterium which causes a fatal blood disease called sorter's disease. This is an occupational hazard.

5. Name the four stages in the life cycle of a silk moth.

Ans. The four stages in the life-cycle of a silk moth :-
egg, caterpillar (larva), pupa and adult

C. Long Answer Type Questions:

1. How is wool fibre obtained from teh sheared wool?

Ans. After shearing, the sheared sheep hair are cut off by using a cutting machine and it has to be passed through the different processes like washing, sorting, carding and then wool fibre can be obtained.

2. Name the wool - yielding animals. Name the animal which provides us Pashmina wool.

Ans. Some wool - yielding animals are :-
Sheep, Goat, Yak, Camel, Rabbit, Llama, Alpaca etc.
The animal which provides us Pashmina wool is cashmere goat.

3. Give reasons.
   a. Why does shearing cause no pain to the sheep?
   b. What kind of feed be given to a sheep for good growth of curly and shiny hair?
   c. Why are sheep bred selectively?

Ans. a. Shearing does not cause any pain to the sheep because the uppermost thin layer of their skin is dead.
   b. The wool yielding sheep are given protein - rich food such as mixture of corn, pulses, jowar and oil cake which is helpful for the growth of curly and shiny hair.
   c. Depending upon the quality of wool required, the sheep are selectively bred by choosing the parents of the 'sheep' with the desired characteristics.

4. Write two characteristics of silk fibre.

Ans. The two characteristics of silk fibres are :-
   i. Silk fibre is soft.
   ii. It is light in weight and strong.

5. What happens when the silk caterpillar stops feeding?

Ans. When caterpillar stops feeding after that its salivary gland starts secreting a sticky fluid called fibroin. This fluid hardens on exposure to air and forms a long thread of silk.

D. Tick (✓) the Odd-One out giving reason:

1. Wool, Rayon, Silk, Pashmina

Ans. Rayon - It is a synthetic fibre and rest three are animal fibre.

2. Caterpillar, Silk, Wool, Mulberry wool leaves, Cocoon

Ans. Wool :- Wool is commonly obtained from wool yielding animals and rest are the parts of life silk worm.

3. Sheep, Goat, Camel, Deer, Angora, Rabbit

Ans. Deer - It is a wild animal and rest are wool yielding animals and can be reared.

4. Anthrax bacterium, Sorting, Sheep, Silk moth

Ans. Silk moth - This one is odd one because rest three are connected to each other.

5. Egg, Caterpillar, Pupa, Mulberry seeds, Cocoon

Ans. Mulberry seeds - It is the part of plant and rests are connected to the life cycle of silk worm.

E. Define the following terms:

1. Wool - yielding animals :- Wool is commonly obtained from the hair of sheep, goat, yak, rabbits and camels. So these animals are also called wool yielding animals.
2. Scouring :- It is the process of removing grease, dirt and dust from the sheep hair.
3. Rearing and breeding of sheep :- Look after the sheep by providing them food, shelter and health care is called rearing.
   And the method of choosing parents for their offspring to acquire unique characters is called selective breeding.
4. Sericulture :- The production of raw silk by means of raising caterpillars.
   OR,
   The rearing of silkworms for obtaining silk is called sericulture.
5. Reeling of silk :- The process of separation of silk filaments from the cocoons is called reeling of silk.

HOTS :- HIGHER ORDER THINKING SKILLS

1. Which of the fabrics made from silk, wool, cotton and jute traps air the most?

Ans. Wool has the highest capacity of air trapping than cotton, jute and silk. These characteristics of air trapping make it more warmer than another fabric because air is a bad conductor of heat.

2. Why is it necesary to kill pupae by boiling cocoons in water?

Ans. During boiling, some amount of water enters the cocoon cavity and makes it soft. This helps in separating the fibres from cocoon during the reeling process. During the reeling process, if pupa tries to come out of cocoon, the fibre may be damaged. Due to hot water, pupa dies and does not emerge out of cocoon.