

Class 7th Living science solution 2017-18

Chapter 4. ANIMAL FIBRES

P. 39 Oral Questions For Formative Assessment

1. cotton - V, cashmere - A, flax - V, jute - V, wool - A, silk - A (V for vegetable fibre and A for animal fibre)
2. Angora fibre comes from Angora rabbit.
3. Air spaces between the wool fibres trap air. Air is a bad conductor of heat. So this shields the body from cold and keeps it warm.
4. Thickness, length, shine, strength and colour decide the quality of the wool.

P. 41 Oral Questions For Formative Assessment

1. pupa, 5500
2. The thread obtained by twisting the filaments of cocoons is called raw silk.
3. boiling water, filaments, filaments, raw
4. Because they inhale the vapours arising from cocoons undergoing various processes like steaming, cooking and reeling.

P. 42 For Formative and Summative Assessment

A. 1. c 2.c 3.a 4. c 5. c

B. 1. Name of the source a. silk silkworm b. wool sheep c. angora Angora rabbit

2. proteins 3. cellulose 4. shearing 5. Sericulture 6. true

C. 1. The fibres that are obtained from natural sources like plants and animals are called natural fibres.

2. Five animals from which wool is obtained are

(i) sheep - normal wool (ii) cashmere goat - cashmere

(iii) Angora rabbit - angora (iv) Angora goat - mohair (v) yak - yak wool

3. Cotton, flax, jute

4. Natural lustrous appearance of silk makes it so attractive.

5. The basis to decide the qualities of wool obtained from sheep are thickness, length, shine, strength and colour of the fibre.

6. The two types of fibres obtained from the fleece of a sheep are the coarse beard hair, and the fine and soft under-hair that grows close to the skin. The under-hair is used to make wool.

D. 1. We wear clothes to protect us against heat, cold and rain mainly. Thus, it has to be suited to the weather. In summer, we wear loose, light-coloured cotton clothes. Cotton clothes allow air to circulate freely and so the heat of the body escapes. Light coloured cotton clothes reflect heat and keep the body cool. They absorb sweat and also prevent skin irritation. In winter, we wear thick, dark-coloured clothes made of wool, fur, or leather to prevent our body heat from escaping. During the rainy season, we use raincoats and umbrellas.

2. Differences between animal and vegetable fibres as follows:

Animal fibres:

(i) Animal fibres are made up of proteins.

(ii) Examples are wool and silk.

Vegetable fibres:

(i) The base of vegetable fibres is cellulose.

(ii) Examples are cotton, the most widely used of all textile fibres, and jute.

3. Air spaces between the wool fibres trap air. Since air is a poor conductor of heat, this shields the body from cold and keeps it warm. Again wool is a bad conductor of heat. This way woollen clothes help in keeping our body warm.

4. see fig.

5. a. Incubation: The silk moth eggs are warmed to a temperature suitable for hatching. This is known as incubation. b. Rearing: After hatching, the silkworms are fed on mulberry leaves for six weeks, and the worms eat almost continuously and increase in size.

c. Spinning: Branches of trees or shrubs are placed in their rearing houses. The worms climb these branches and make their cocoons out of one continuous thread.

d. Reeling: The cocoons are first boiled or treated in ovens, killing the insects by heat. The silk fibre is then obtained from the cocoons by a delicate process known as reeling.

6. Workers employed in the sericulture industry are adversely affected by a number of diseases.

(i) Respiratory diseases: Inhalation of vapours arising from cocoons undergoing steaming, cooking and reeling produces breathing problems, asthma and other bronchial ailments.

(ii) Scabies and other skin infections: As a result of constant dipping of cocoons in boiling water, the skin of the workers becomes raw and blistered, resulting in peeling of the skin of hands and feet.

HOTS Questions 1. Shearing of sheep is not done during the cold season because nothing will be left on their bare bodies to protect them from severe cold. They may even die without wool in winter.

2. Shearing does not hurt a sheep. It is just like getting a haircut.

3. Animal activists are against the present process of getting silk from the cocoon because in this process the pupa are killed in a cruel way by boiling them in water.

4. Wool traps the most air. Because of this, it is the best insulator and hence very good for winter clothing.