

Question:1

Write two examples for each of the following.

1. States in India where sheep are reared
2. Animals of the camel family that give us wool
3. Goats that give us good-quality wool
4. Wool-producing countries
5. Types of silk

Solution:

1. Sikkim and Uttaranchal
2. Bactrian camels and Alpaca
3. Cashmere goats and Angora goats
4. Australia and Turkey
5. Tassar and Mooga

Question:2

Write one word for the following

1. The process of removing fleece from an animal
2. The process of removing dirt, dust, and grease from sheared hair
3. Rearing of silkworms for silk production
4. The pupa stage in a moth's life cycle
5. The process of taking out filaments from the cocoons

Solution:

1. Shearing
2. Scouring
3. Sericulture
4. Cocoon
5. Reeling

Question:3

Which of these fibres is used to make wool?

- (a) The coarse beard hair
- (b) The soft under-hair
- (c) The coarse under-hair
- (d) The soft beard hair

Solution:

- (b) The soft under-hair.

The soft under-hair present close to the skin of the sheep is used to make wool.

Question:4

In India, sheep are reared in which of the following state(s)?

- (a) Uttaranchal
- (b) Himachal Pradesh
- (c) Sikkim
- (d) All of these

Solution:

- (d) All of these.

Sheep are reared in the hilly regions of our country like Himachal Pradesh, Sikkim, Uttaranchal, etc.

Question:5

The main source of wool is

- (a) Alpaca
- (b) Angora goat
- (c) Sheep
- (d) Angora rabbit

Solution:

- (c) Sheep.

Sheep is the main source of wool.

Question:6

The stage in which silk thread is obtained from silkworm is

- (a) egg
- (b) larva
- (c) pupa

(d) adult

Solution:

(c) Pupa.

The silkworm caterpillar spins itself in a silk cocoon in which it transforms from the caterpillar into the adult moth. This cocoon, with the caterpillar is known as the pupa.

Question:7

Silk threads are obtained from

(a) egg

(b) cocoon

(c) leaves

(d) larva

Solution:

(b) cocoon.

Silk threads are obtained by unravelling the cocoons of silkworms after they are boiled in water to kill the silkworm within the cocoon.

Question:8

What is wool?

Solution:

Wool is an animal derived fibre. Wool grows in the form of a thick coat of hair on certain animals and is usually an adaptation to help animals keep their body warm in cold climates.

Question:9

Name any three states in India where are reared for the production of wool.

Solution:

Sheep rearing is common in hilly states such as Sikkim, Himachal Pradesh and Jammu and Kashmir.

Question:10

Name two Indian breeds of sheep and the quality of wool each one produces.

Solution:

Sheep of the Lohi or Nali breeds produce soft wool that can be used for weaving carpets.

The wool from Marwari sheep is generally coarse and is also used for rough textured woollen carpets.

Question:11

Fill in the blanks with the correct words.

1. Wool is actually the (skin/hair) on the body of some animals.
2. The (Bactrain camel/llama) gives the best-quality wool.
3. The fibre obtained from (Angora goat/camel) is called mohair.
4. A larva transforms into a/an (egg/pupa).
5. The (cocoons/larvae) are placed in hot water to loosen the silk filaments.

Solution:

1. Wool is actually the hair on the body of some animals.
2. The Bactrian camel gives the best-quality wool.
3. The fibre obtained from Angora goat is called mohair.
4. A larva transforms into a pupa.
5. The cocoons are placed in hot water to loosen the silk filaments.

Question:12

Name four animals other than sheep from which wool is obtained. Also describe the quality of wool produced by each.

Solution:

Other than sheep, wool can be obtained from the animals like camels, goats and rabbits.

- i. The Alpaca, a camel breed, gives fibres which are light weight, soft and shiny in nature.
- ii. The Cashmere goat gives soft and warm fibre which is called Cashmere fibre.
- iii. The Angora goat gives a light, warm and durable fibre called Mohair.
- iv. The Angora rabbit, one of the breeds in rabbit, gives Angora wool. Angora rabbit wool is soft, fluffy and warmer than normal wool due to its hollow fibres.

Question:13

Describe the steps involved in the production of wool.

Solution:

The different steps involved in the production of wool are:

- i. Shearing: This is the process of removing fleece from the animal body.
- ii. Scouring: Washing sheared hair to remove dirt, dust and grease is called as scouring.
- iii. Grading: This is the process of grading the wool based on its length, colour, texture and dyeing

- iv. Dyeing: In this process the sheared wool is dyed in different colours.
- v. Drying: Squeezing out the maximum amount of water from the wool, through rollers is called as drying.

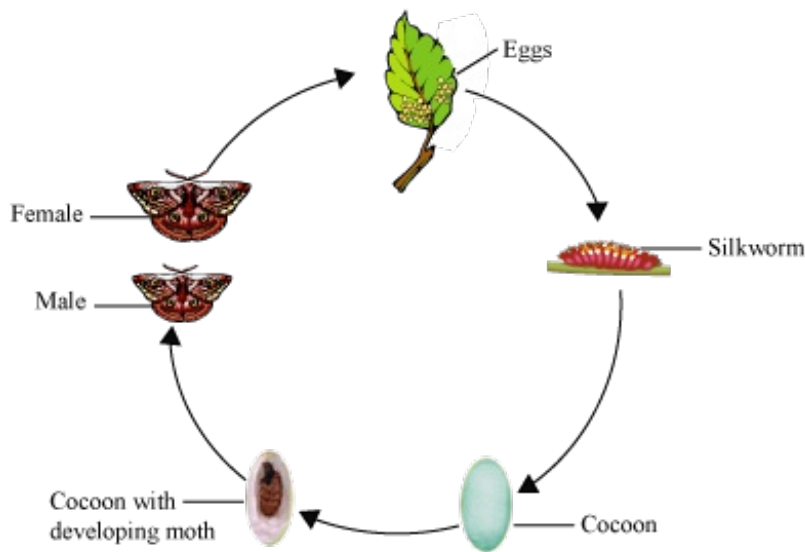
After drying, the wool is weighed and packed into bales, which are sent to the mills for further processing.

Question:14

Describe the life cycle of the silk moth.

Solution:

An adult female silk moth lays about 300 to 400 tiny eggs at a time. These eggs hatch into caterpillars. This is called as the larval stage. Each caterpillar, stays in this stage for about 3-4 weeks feeding on the mulberry leaves and secreting protein filaments with the help of the glands present on its head. The caterpillar then starts depositing filament layers around its body, which may take 3 -7 days, forming a hard pouch-like structure called cocoon. The caterpillar transforms into a pupa inside the cocoon. In the final stage of the life cycle, the pupa transforms into a male or female silk moth.



Question:15

Describe the process of silk production.

Solution:

Sericulture is a process of rearing silk worms for silk production. Healthy moths are selected to lay eggs as the eggs hatch once in a year. These eggs are washed and stored. Larvae that hatch from the eggs are spread on wooden trays, fed with chopped mulberry leaves and allowed to grow. After 20 – 35 days, twigs are placed on the trays, on which the worms start spinning their cocoons. This may take about 3 – 7 days. Once the cocoons are completely built, they are put in hot water, for reeling, in which the worms are killed and the filaments of silk are drawn from the cocoons..

Filaments from several cocoons are wound on a reel, which are then dyed and woven into a silk

fabric.

Question:16

What are the health hazards involved in sericulture?

Solution:

Health hazards caused by sericulture are:

- i. Workers are often prone to infections due to blisters and injuries that occur while dipping their hands in the hot water to check whether the filaments have loosened enough to wound.
- ii. Vision disorders and backaches are caused by standing continuously, for 12 -16 hours in a day, reeling the silk thread.
- iii. The noise from the machines weaving the fabric can cause hearing impairments.
- iv. The diesel fumes from the machines and the vapours from the boiling cocoons can cause respiratory disorder

Question:17

Name the different processes involved in wool production.

Solution:

The different steps involved in the production of wool are:

- i. Shearing
- ii. Scouring
- iii. Grading
- iv. Dyeing
- v. Drying

Question:18

What is silk? Give some characteristics of the silk fibre.

Solution:

The fibre produced by silkworms is known as silk.

Silk fibres are very soft and have a property to shine, i.e., they have lustre.

Question:19

What is sericulture?

Solution:

The rearing of silkworms for production of silk is called sericulture.

Question:20

Differentiate between shearing and reeling.

Solution:

Shearing	Reeling
This is the process of removing fleece from the body of an animal.	This is the process of removing filaments from the cocoons of silk worms.
This is an important stage in the production of wool.	This is an important stage in the production of silk.

Question:21

How can we distinguish between natural silk and artificial silk?

Solution:

Natural silk	Artificial silk
It smells like burning hair, when burnt.	It smells like a burnt paper, when burnt.