



**Subject: Science.**

**Fibre to fabric.**

**Date: 3.12.22**

## Book exercise

### A. Choose the appropriate answer

1. Which of these is not a natural fibre?  
a) **leather**      b) jute      c) wool      d) cotton
2. Which of these fabrics will you choose to wear in hot and humid conditions?  
a) **cotton**      b) silk      c) nylon      d) wool
3. Historians believe that cotton clothes were first worn in  
a) India      b) **Egypt**      c) China      d) Europe
4. Which of these is the leading producer of wool today?  
a) Germany      b) **Australia**      c) New Zealand      d) USA
5. Which of these is not a property of jute?  
a) biodegradability      b) durability      c) **smoothness**      d) strength
6. Which of these is not a fibre?  
a) jute      b) nylon      c) **leather**      d) wool
7. Which of these do you think traps the most air?  
a) nylon      b) cotton      c) **wool**      d) polyester
8. Which of these is not a property of nylon?  
a) light weight      b) strong      c) **absorbs water**      d) wrinkle free

### B. VERY SHORT ANSWERS

1. Name one fibre each that is:  
a) smooth      b) shiny      c) fluffy      d) wrinkle free

**ANS:** a) Smooth: Cotton is an example of a smooth fibre.  
b) Shiny: Silk is an example of a smooth fibre.  
c) Fluffy: Wool is an example of a fluffy fibre.  
d) Wrinkle free: Polyester is an example of a wrinkle free fibre.

2. Cotton grows best in the **black** soil of south India or the **alluvial** soil of north India.

3. To grow best, cotton requires **moderate** rainfall.

4. **Sericulture** is the rearing of silkworm for the production of silk.

5. Jute is one of the cheapest natural fibres. **True**

6. Jute grows best in areas that get **heavy** rainfall.
7. Soaking of jute plants in water is known as **retting**.
8. Synthetic fibres dry faster than cotton or wool. **True**
9. Fibres are made from melted plastic by passing it through fine holes in a **spinneret**.

### **C. Short answer**

1. Why do we wear clothes?

**ANS:** We wear clothes to protect ourselves against the weather such as strong sunlight, extreme cold, heat or rain.

2. How did people cover their bodies before invention of clothes?

**ANS:** Before the invention of clothes, people covered their bodies with the skins of animals in cold weather or with leaves, barks, or grasses in warm weather.

3. What is the difference between fibre and yarn?

**ANS:**

Fibres	Yarn
Fibres are obtained from natural sources such as cotton, wool etc.	Yarn is obtained by braiding different fibres together.

---

4. Name two fibres that are used to make clothes, and two materials that are not fibres but are used to make clothes.

**ANS:** Two fibres that are used to make clothes are cotton and wool. Two materials that are not fibres but are used for making clothes are leather and fur, which are derived from animals.

5. List two uses of jute.

**ANS:** Following are the uses of jute:

- (i) Jute is useful for making ropes.
- (ii) It is used in making gunny sacks or covers for chairs.

6. Which properties of synthetic fibres make them useful?

**ANS:** The properties of synthetic fibres that make them useful include:

1. High strength
2. Resistance to wrinkling
3. Fast drying

These properties are exploited in making clothes with synthetic fibres.

7. In most parts of India pure nylon or polyester clothes are not worn. Why?

**ANS:** The climate in most parts of India is hot. Nylon and polyester being synthetic fibres do not 'breathe' as easily as cotton. They are unable to absorb sweat and keeping the wearer cool in hot climates.

8. Why does jute grow so well in the Sunderbans area?

**ANS:** Jute grows best in warm, humid climates receiving plenty of rainfall. Jute also requires alluvial soil receiving silt from annual flooding. These conditions are best available in the Sunderbans region. Hence, jute grows well in the Sunderbans region.

#### **D. Long question answers**

1. What kind of climate and soil does cotton require to give a good yield?

**ANS:** Kind of climate and soil required for having a good yield of cotton: Cotton is a warm season crop that needs moderate rainfall. It requires fertile and clayey soil that can hold moisture. The best suited soil for growing cotton is black soil which is found in western and southern India. Cotton is sown between May and September in India and its harvesting begins from October.

2. Name and explain in one sentence each the steps involved in converting cotton growing on plants to cotton cloth.

**ANS:** Three steps are involved in converting cotton to cloth:

- (i) Ginning: The cotton obtained from cotton bolls is separated from seeds by this process.
- (ii) Spinning: The fibres obtained by combing are spun into yarn by this process.
- (iii) Weaving: The yarn is finally woven into cloth using two different types of yarns.

3. What advantages does cotton have over synthetic cloth?

**ANS:** Cotton cloth is soft and it lets air flow through it. In other words, cotton cloth can breathe freely. This is not the case with synthetic cloth such as nylon. Further, cotton clothes can absorb sweat, which synthetic clothes cannot. The absorbed sweat then evaporates from the clothing and cools down the wearer in hot and humid weather.

4. Outline the process of making woollen clothes.

**ANS:** The process of making woollen clothing employs the following steps:

1. Shearing: The wool is removed from the sheep using special clippers in a process known as shearing.
2. Transportation: Post shearing, the wool is packed into bales and transported to the mills.
3. Combing and spinning: The wool is then combed by a combing machine and spun into fibre.
4. Knitting or weaving: The fibres are then knit or weaved into woollen clothing.

---

5. How is silk obtained?

**ANS:** Silk is obtained from the cocoon of silk worms. The silk worms feed on mulberry leaves and each worm spins a continuous thread, which is nearly 800 meters in length,

to make a cocoon. The cocoons are collected and boiled in water to kill the silkworms. The cocoons are then unwrapped to get silk fibre, which is then woven into fabric.

6. How is jute fibre made from the jute plant?

**ANS:** Jute fibre is obtained from jute plant by the following steps:

1. Retting: Jute fibre is obtained from the stalks of the jute plant. After harvesting, the stalks of jute plants are bundled together and soaked in water for about 20 days.
2. The fibres are then separated from the stem in long strands and washed in clear, running water.
3. The fibres are then spread out or hung up to dry for between 2-3 days.
4. The dried fibres are then collected and bundled to be sent to the mills to be processed into fabric, ropes, gunny sacks etc.

- 
- Complete the HOTS questions in your own words
  - Make a collage work on different fibres that we are using in our day today life..