



# UNIQUE STUDY POINT

## Fibre to Fabric

**Question 1:** Classify the following fibres as natural or synthetic: nylon, wool, cotton, silk, polyester, jute

**Answer:** Natural: Wool, Cotton, Silk, Jute  
Synthetic: Nylon, Polyester

**Question 2:** State whether the following statements are true or false:

- (a) Yarn is made from fibres.
- (b) Spinning is a process of making fibres.
- (c) Jute is the outer covering of coconut.
- (d) The process of removing seeds from cotton is called ginning.
- (d) Weaving of yam makes a piece of fabric.
- (e) Silk fibre is obtained from the stem of a plant.
- (f) Silk fibre is obtained from the stem of a plant.
- (g) Polyester is a natural fibre.

**Answer:**

- (a) True
- (b) False; The process of making yarn from fibres is called spinning.
- (c) False; Jute fibre is obtained from the stem of jute plant.
- (d) True
- (e) True
- (f) False; Silk fibre is obtained from cocoon of the silk moth.
- (g) False; Polyester is a synthetic fibre.

**Question 3:** Fill in the blanks:

- (a) Plant fibres are obtained from\_\_\_\_\_ and\_\_\_\_\_ .
- (b) Animal fibres are\_\_\_\_\_ and\_\_\_\_\_ .

**Answer:** (a) Plant fibers are obtained from **cotton** and **jute**.

(b) Animals fibers are **silk** and **wool**.

**Question 4:** From which parts of the plant cotton and jute are obtained?

**Answer:** Cotton is obtained from the fruits of the cotton plant, called cotton balls. Jute fibre is obtained from the stem of the jute plant.

**Question 5:** Name two items that are made from coconut fibre.

**Answer:** Jute bags, ropes and Foot mats.

**Question 6:** Explain the process of making yarn from fibre.

**Answer:** The process of making yarn from fibres is called spinning. In this process, fibres from a mass of cotton are drawn out and twisted. This brings the fibres together to form a yarn. Spinning is done at home using simple devices like hand spindle (Takli) and charkha. On large scale big spinning machines are used.

### Very Short Type Questions and Answers

**Question 1.** Name the country which invented cotton clothing.

**Answer:** India.

**Question 2.** In which states of India, cotton is grown?

**Answer:** Cotton is grown in Maharashtra, Gujarat, Punjab, Rajasthan, Tamil Nadu and Madhya Pradesh.

**Question 3.** In which states of India, jute is cultivated?

**Answer:** West Bengal, Bihar and Assam are the main producers of jute in India.

**Question 4.** Which method is used to harvest cotton from the plants?

**Answer:** Hand picking.

**Question 5.** What is ginning?

**Answer:** Ginning is the process of separating cotton fibres from its seeds.

**Question 6.** Which type of soil is the best for the cultivation of cotton?

**Answer:** Black soil.

**Question 7.** In which season, jute is cultivated?

**Answer:** Rainy season.

**Question 8.** What is knitting?

**Answer:** In knitting, a single yam is used to make a piece of fabric.

**Question 9.** What are looms?

**Answer:** Loom is a device on which weaving of fibres is done.

**Question 10.** Name the two types of looms.

**Answer:** Looms are of two types:

- Hand operated
- Power operated.

**Question 11.** Name the person who made the charkha popular during independence movement.

**Answer:** Mahatma Gandhi

### **Short Type Questions and Answers**

**Question 1.** What is fabric?

**Answer:** Fabric means a woven material, a textile or other material resembling woven cloth. Fabric is made up of yarns. Fabrics are made by the two main processes known as weaving and knitting.

**Question 2.** On what factors does our type of clothing depend?

**Answer:** Type of clothing which we wear is influenced by climate, occupation, culture and daily needs.

**Question 3.** Why are cotton and woollen clothes rough and silk, rayon, nylon, polyester smooth to touch?

**Answer:** Roughness of cotton and woollen fibre is due to presence of many folds and uneven surfaces in it. Silk, rayon, nylon and polyester are smooth because they have long plain, fine structure.

**Question 4.** Classify the following fibres into natural and man-made: cotton, nylon, jute, wool, silk, rayon, polyester.

**Answer:**

- Natural fibres – Cotton, jute, wool, silk.
- Man-made fibres – Nylon, rayon, polyester.

**Question 5.** From where wool is obtained?

**Answer:** Wool is obtained from the fleece of sheep or goat.

**Question 6.** What is known as golden fibre?

**Answer:** Jute is the cheapest natural fibre and is known as the golden fibre.

**Question 7.** What is weaving?

**Answer:** The process of arranging two sets of yarn together to make a fabric is called weaving.

**Question 8.** Which type of soil is best suited for jute crop?

**Answer:** Alluvial soil in the delta regions of rivers like the Ganga and the Brahmaputra are the best for the cultivation of jute.

**Question 9.** When we burn wool, why do we get the smell of hair bum?

**Answer:** Wool is obtained from the fleece (hair) of sheep, goat, yak, etc. This is the reason why burning of wool gives smell like burning of hair.

**Question 10.** Name the plant from which jute is obtained. From which of its part do we get jute?

**Answer:** Jute is obtained from 'Putson'. It is obtained from its stem.

**Question 11.** Which parts of these plants have fibres?

- (a) Cotton
- (b) Mango
- (c) Coconut
- (d) Banana.

**Answer:**

- (a) Cotton – seeds
- (b)Mango – seeds
- (c) Coconut – fruits
- (d) Banana – leaf.

**Question 12.** Why are jute plants cut at flowering stage and not on complete maturation?

**Answer:** Jute plants are cut at the time of flowering stage because a good quality of fibre is obtained at this stage. On complete maturation of plant, fibres of its stem become very hard.

**Question 13.** What are the important uses of jute?

**Answer:**

- Jute is extensively used for making gunny bags, potato sacks, carpets, curtains, coarse clothes and ropes, etc.
- These days, fine quality of jute is also used for making jute fabrics.

**Question 14.** What is spinning?

**Answer:** The process of making yarn from fibres is called spinning.

**Question 15.** Name two simple devices used for spinning.

**Answer:**

- Takli
- Charkha

**Question 16.** Where were the cotton and flax plants cultivated in ancient Egypt?

**Answer:** Cotton and flax plants were cultivated near the river Nile in ancient Egypt.

**Question 17.** How are natural fibres better than synthetic fibres?

**Answer:** The natural fibres absorb sweat, give cooling effect and comfort in all seasons.

**Question 18.** What are bales?

**Answer:** Raw cotton fibres are compressed into bundles of approximately 200 kg. These compressed cotton bundles are called bales.

**Question 19.** What were the wearings of the people of stone age?

**Answer:** During the stone age, people wore bark, big leaves of trees or animal skins to keep themselves warm. '

**Question 20.** When stitching was not known, how did people use fabrics available with them?

**Answer:** When stitching was not known, people simply draped the fabrics around different parts of their body. Many different ways of draping fabrics were used.

**Question 21.** Name the clothes which are used as an unstitched piece of fabric even now.

**Answer:** Saree, dhoti, lungi or turban are the clothes which are used as an unstitched piece of fabric even now.

### **Long Type Questions and Answers**

**Question 1.** Why primitive life was confined to the tropics? When was it possible for the people to migrate to colder regions?

**Answer:** Primitive men and women had no idea about clothes, and were at the mercy of their environment. Primitive life was confined mostly to the tropics where the climate was warm and no clothing was needed. Only after the invention of fire, it became possible for people to migrate to colder regions

**Question 2.** What are the uses of cotton?

**Answer:** Cotton has a variety of uses. Some uses of cotton are given below:

- Cotton or cotton in combination with other fibres is used in manufacture of textiles.
- Cleaned cotton is used as an absorbent in hospitals.
- Unspun cotton is used, as fillers in mattresses, pillows and quilts.
- Cotton is used as a main raw material in manufacturing of rayon and in paper industry.

- Due to high water absorption property, clothes made from cotton are extensively used as mops in household and for cleaning machines in industries.

**Question 3.** Explain various steps in the manufacture of cotton fabric from cotton.

**Answer:** Important steps in the manufacture of cotton fibres are as described below:

- Cotton is hand picked from the plants.
- Ginning: The picked cotton is taken to godowns where the seeds are pulled out of the cotton by steel combs.
- Baling: Ginned cotton is compressed tightly into bundles weighing approximately 200 kg called bales.
- Raw cotton from bales is cleaned from straw and dried leaves, combed and straightened and finally converted into rope like strand called sliver.
- Spinning: To make this strand into yam strong enough for wearing, it is pulled and twisted.
- Yarn is wound on big reels called 'bobbins'. These bobbins of yam are subjected to weave for making cloth.
- Weaving: Weaving from yam is done in the looms.
- Bleaching and dyeing: Fabric made in the loom is grey in colour. The fabric is now bleached and dyed at a finishing plant.

**Question 4.** In which season is cotton planted? What is its course of growth?

**Answer:** It is planted early in the spring. Cotton plants grow steadily and soon become bushes of 3 to 6 feet high. After about 2 months, they bear white or yellowish flowers which turn pink or red after a few days. The petals of the flowers fall, leaving behind tiny green seeds. This later grows into spherical-shaped structure of the size of a walnut, which is called cotton ball. As the cotton bolls grow steadily, the seeds and the fibres grow inside. On maturing, the green bolls begin to turn brown. On complete maturation, they become ready to burst open, exposing the white fibres. As the fibres dry in the sun, they become fluffy.

**Question 5.** What is retting? Explain how fibres are obtained from the jute plants.

**Answer:** Jute plants are cut at the flowering stage when plants are 8-10 feet high. The cut plants are grouped at different places in the field for a few days when most of the leaves dry up and fall down. The plants are now tied into small bundles. The bundles are made to sink in stagnant water of a pond for a few days and then the gummy skin rots out to separate fibres. This process is called 'retting'. Fibre is extracted from the retted jute by hand, with jerks and pulls. The dried fibres are then tied together in small bundles.

**Question 6.** What are the three stages in history of the development of clothing material?

**Answer:** In terms of raw materials, cloth making was developed in three stages. The first stage was cloth from plant fibres, such as flax, cotton, nettles and inner bark of the trees. The second stage began with the use of animal fibres especially wool and silk. Silk came to various parts of the world from China. The third stage in the history of clothing began in the late 19th century with the development of man-made or synthetic fibres like rayon, nylon and polyester. Now man-made fibres combined with other animal with or without plant fibres are used for making clothes for improved strength, wearing ability and other qualities.

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