

CHAPTER - 2

TISSUES

I. VERY SHORT ANSWER TYPE [2 Marks]

1. What is lignin? [T. Bk. Q: 16]

Ans Lignin is a substance deposited in plant cell walls that makes them hard and strong.

2. What are responsible for contraction and relaxation in muscles? [T. Bk. Q: 20]

Ans Actin and myosin proteins are responsible for muscle contraction and relaxation.

3. Water hyacinth floats on water surface. Explain [T. Bk. Q: 24]

Ans Aerenchyma present in the swollen petiole provides buoyancy to the hyacinth. Thus, it floats on the water surface.

4. Why does an organism - plant or animal, require different types of cells in the body? [T. Bk. Q: 26]

Ans Different cells perform different functions, so an organism needs different types of cells to carry out all its activities.

5. If a potted plant is covered with a glass jar, water vapour appears on the wall of the glass jar. Why? [T. Bk. Q: 27]

Ans The plant loses water vapour through transpiration, which condenses on the glass jar.

6. Why are voluntary muscles also called skeletal muscles? [T. Bk. Q: 28]

Ans Voluntary muscles are also called skeletal muscles because they are attached to bones and help in the movement of the skeleton.

II. SHORT ANSWER TYPE [3 Marks]

1. What happens to the cells formed by Meristematic tissue? [T. Bk. Q: 1]

Ans The cells formed by Meristematic tissue gradually lose their ability to divide and become specialised to perform specific functions. They form permanent tissues.

2. Write a short note on Phellogen. [T. Bk. Q: 3]

Ans Found in older stems and roots of woody plants, and produced by cork cambium (Phellogen) which generates cork (Phellem) on the outside.

3. Describe the function of bones. [T. Bk. Q: 5]

Ans

- i) Provide shape and support to the body.
- ii) protects vital organs like the brain and lungs.
- iii) Act as a site for blood cell production in bone marrow.

4. How are messages conveyed from one place to another within the body? [T. Bk. Q: 6]

Ans Messages are conveyed within the body by specialised cells called neurons through electrical impulses.

5. Write a short note on blood [T. Bk. Q: 12]

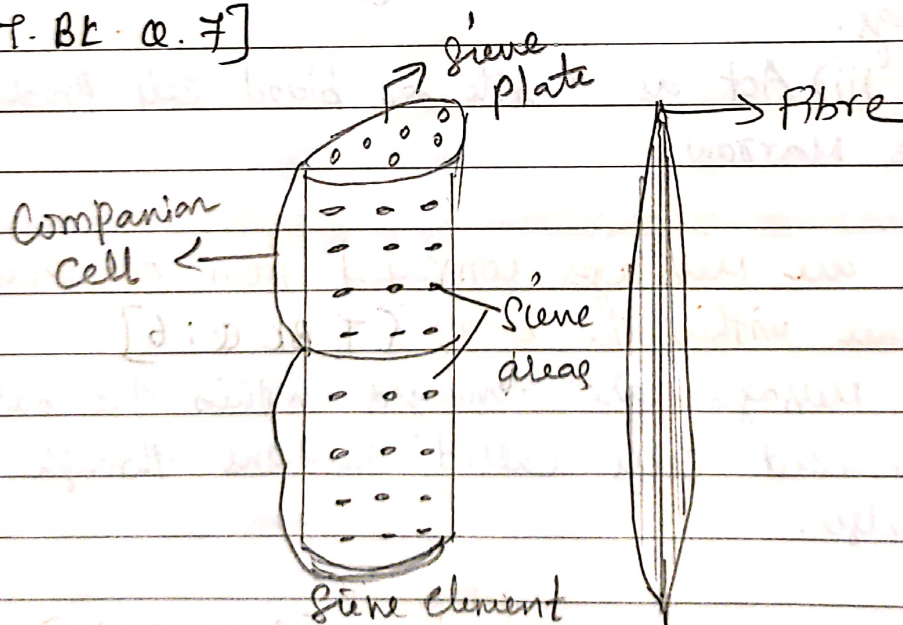
Ans Blood is a fluid connective tissue. It consists of plasma, RBCs, WBCs and platelets. It transports oxygen, nutrients, hormones and waste materials throughout the body.

III. LONG ANSWER TYPE [5 MARKS]

1. Differentiate between Meristematic tissue and Permanent tissue. [T. BK Q: 5]

Meristematic tissue	Permanent tissue
i) cells are capable of division.	- cells lose the ability to divide.
ii) cells are undifferentiated	- cells are fully differentiated.
iii) cell walls are thin.	- cell walls are relatively thick.
iv) vacuoles are absent or very small.	- contains a large central vacuole
v) No intercellular spaces present.	- Intercellular spaces are present.

2. Draw and identify different elements of phloem. [T. BK Q: 7]



PHLOEM