

5. What are the functions of the stomata?

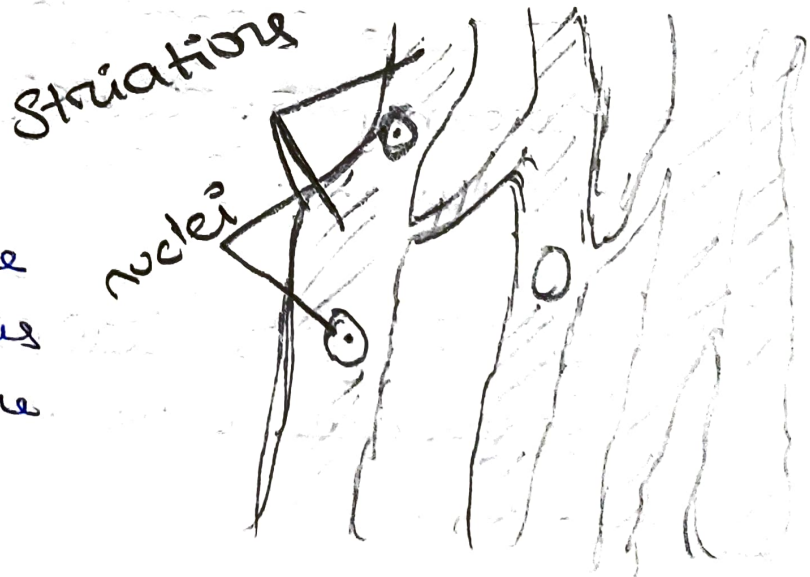
→ Stomata are the tiny pores present on the outer layer of the cells, the epidermis. Stomata bring about the exchange of gases and transpiration.

6. Diagrammatically show the difference between the three types of muscle fibres.

→ There are three types of muscle fibres, they are:

1. Cardiac fibres

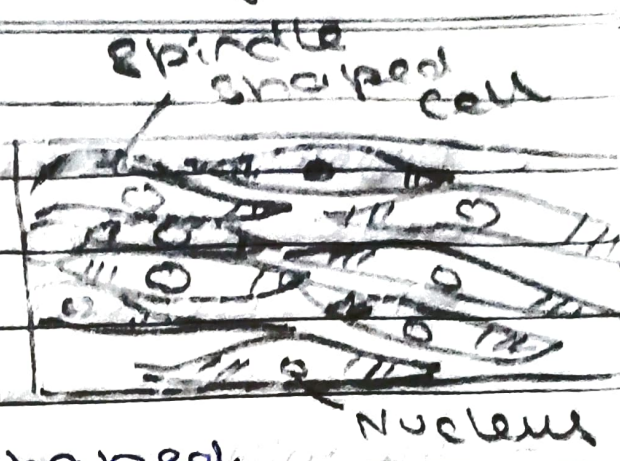
- Present in heart
- Involuntary in nature
- They have nucleus
- The muscle fibres are branched.



Cardiac muscle

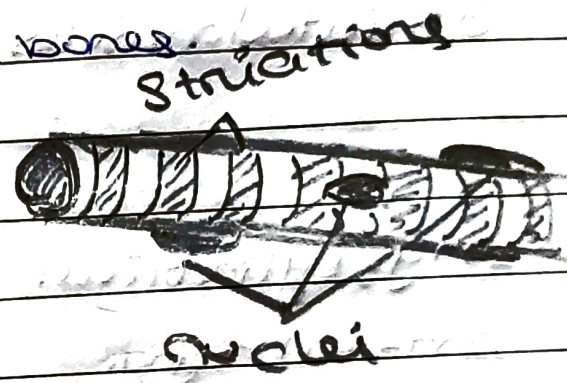
2. Smooth nucleus

- Found in lungs and alimentary canal
- Involuntary in nature
- They have spindle shaped.



3. Striated muscle

- They are connected with bones.
- Voluntary in nature
- They are long and cylindrical muscle fibres.
- They possess many nuclei
- Striated muscles are unbranched.



7. What is the specific function of the cardiac muscle?

→ The cardiac muscles are branched and cylindrical. They are uninucleated and are involuntary in nature. Throughout our lifetime, the cardiac muscles bring about the rhythmic contraction and relaxation.

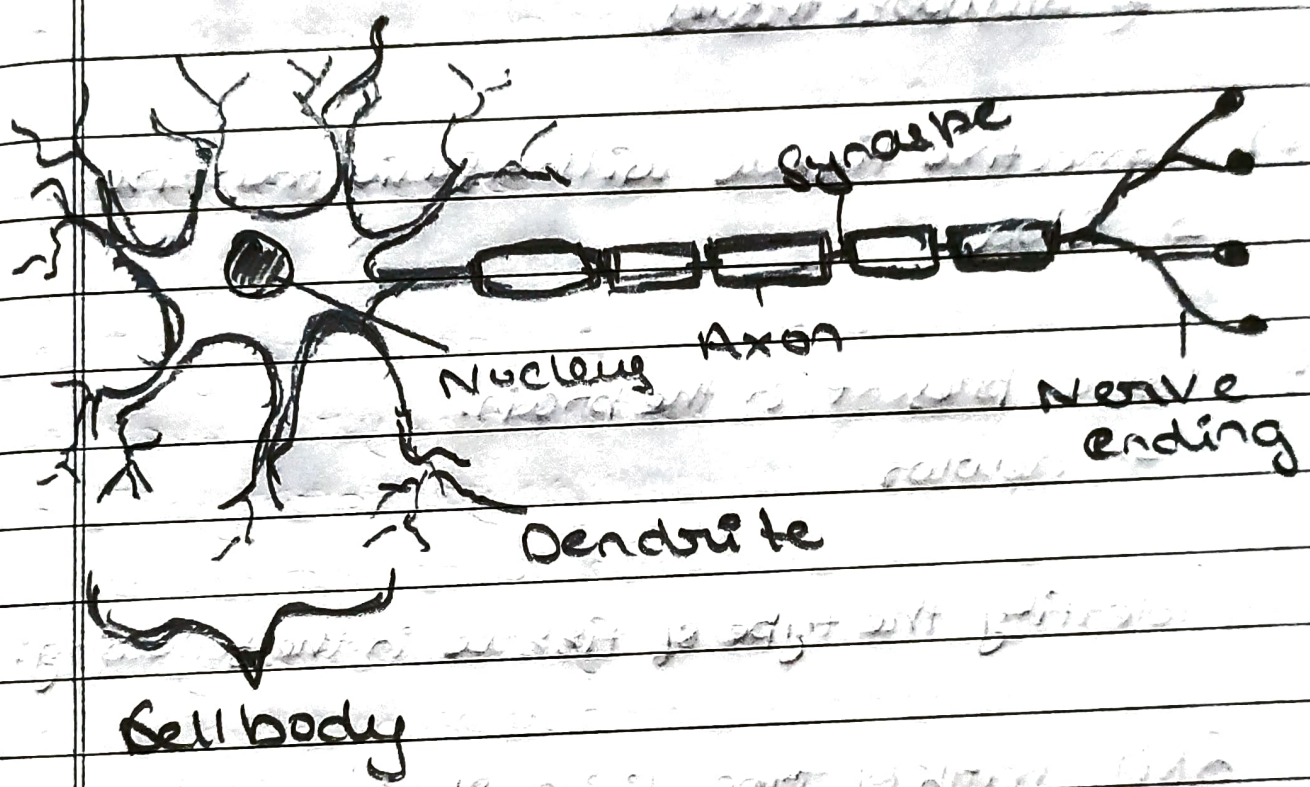
8 Differentiate between striated, un-striated and cardiac muscles on the basis of their structure and site location in the body.

→ The following are the differences between different types of muscles based on their structure and location in the body:

Striated muscles	un-striated muscles	cardiac muscles
<ul style="list-style-type: none"> • Long, cylindrical, non-tapering. • They are un-branched. 	<ul style="list-style-type: none"> • Long and tapering. • They are un-branched. 	<ul style="list-style-type: none"> • Cylindrical and non-tapering. • They are branched.
<ul style="list-style-type: none"> • Hands, legs and skeletal muscles 	<ul style="list-style-type: none"> • Wall of stomach, intestine, ureter and bronchi 	<ul style="list-style-type: none"> • Heart
<ul style="list-style-type: none"> • Dark and light bands are present. 	<ul style="list-style-type: none"> • Dark and light are absent. 	<ul style="list-style-type: none"> • Dark and light bands are present but less prominent.

9. Draw a labelled diagram of a neuron.

→ Diagram of a neuron ~~is~~ along with labelling as follows:



10. Name the following:

(a) Tissues that form the inner lining of our mouth. → The epithelial, Squamous epithelium.

(b) Tissue that connects muscle to ~~bone~~ bone in humans. → Tendon.

(c) Tissue in plants

(c) Tissues that transport food in plants.
→ phloem

(d) Tissues that store fat in our body.
→ Adipose tissues

(e) Connective tissue with a fluid matrix.
→ Blood

(f) Tissue present in the brain.
→ neuron

11. Identify the type of tissue in the following:

Skin, bark of tree, lining of kidney tubule, vascular bundle.

→ Skin: Stratified squamous epithelial tissue

→ Bark of tree: Protective tissue and cork

→ Bone: Connective tissue

→ Lining of kidney tubule: cuboidal epithelial tissues.

→ vascular bundle: conducting tissue (xylem and phloem) & complex permanent tissue.

12. Name the regions in which parenchyma tissue is present.

→ The parenchyma is found in:

- The pith of stem and root
- When parenchyma contains chlorophyll it is called as chlorenchyma, it is found in green leaves.

- Parenchyma found in aquatic plants has large air cavities which enable them to float and are hence called aerenchyma.

13. What is the role of epidermis in plants?

→ The epidermis in plants forms an uninterupted and continuous layer that has no intercellular spaces. It provides protection.