Animals Tissue

(English Medium)

Exercise 84:

Solution 1.1:

B. Contract and relax to cause movements
Muscle cells are made up of long and contractile fibres that help in the movement of different parts of the body.

Solution 1.2:

C. Connective tissue
Bone is a connective tissue that forms the skeleton that supports the body.

Solution 1.3:

C. Contractile protein
Contractile protein present in the muscle fibres helps movement of different parts of the body.

Solution 1.4:

C. Act as soldiers
White blood cells attack and destroy invading germs. They also produce antibodies that help to kill germs.

Solution 2.1:

Location of different tissues in living animal is as follows:

Tissues	Location
Areolar tissue	Below the layer of the skin, in the packing between the muscles,

	mesentry peritoneum, around the blood vessels entering the organs
Squamous Epithelium	Layer of mouth, oesophagus, nose, alveoli and blood vessels cavity
Cardiac muscle	In the wall of the heart
Adipose tissue	Below the layer of the skin
Glandular Epithelium	Covering layer of all the major glands, in the intestinal lining

Solution 2.2:

- Epithelium: Epithelium is the layer of covering cells which surrounds the entire body as well as the outer layer of organs, inner layer of alimentary canal and cavity of glands.
- Blood: Blood is the fluid connective tissue made up of matrix and blood cells. The blood cells include red blood cells, white blood cells and platelets. The blood cells along with other elements are present suspended in the fluid of the blood.
- Tissue: Tissue is a group of cells performing particular functions of a specific type, of similar shape, of common origin and structure and bearing specific properties.
- Organ: A group of tissues joined in a structural unit to perform a specific common function is called an organ.

Solution 2.3:

- **Bone and cartilage**

Bone	Cartilage
Bones form the skeleton of the body	Cartilage is present between the joints of bones, along the respiratory tract, and in places where flexibility is required.
Bones are made up of bone cells called as osteocytes.	Cartilage is made up of cells called as chondrocytes.

- **Osteocytes and white blood cells**

Osteocytes	White Blood Cells
Osteocytes are the cells of bones.	White blood cells are one of the types of cells present in blood.
Osteocytes are star shaped.	White blood cells are circular in shape.

- **RBC and WBC**

RBC	WBC
RBC lack nucleus on maturity.	WBC are nucleated cells.
They help carry oxygen to different parts of the body, and carbon dioxide from different parts of the body, back to the lungs.	WBC act as soldiers. They attack and destroy invading germs. They also produce antibodies that help to kill germs.

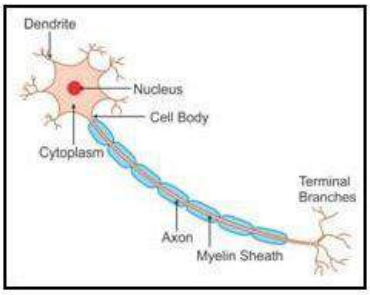
Solution 2.4:

Functions of epithelial tissues are:

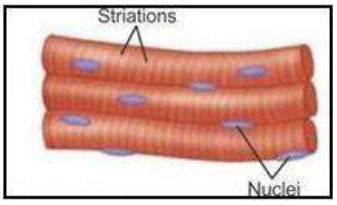
- Squamous epithelium protects the body from the entry of germs and from mechanical injury.
- Cuboidal epithelium helps in absorption, excretion and secretion in uriniferous tubules.
- Cuboidal epithelium also gives mechanical support to the body.
- Columnar epithelium helps in absorption and secretion in stomach and intestine.
- Ciliated epithelium creates oscillatory movement and current in the respiratory tract thus, trapping any dust or germs that enter the wind pipe.
- Stratified epithelium helps to protect the internal parts of the body from injury.

Solution 2.5:

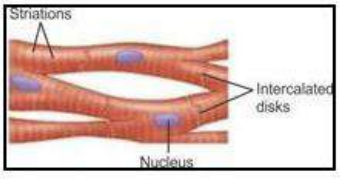
i. Neuron



ii. Striated muscle



iii. Cardiac muscle



Exercise 85:

Solution 3.1:

Tissue is a group of cells performing particular functions of a specific type, of similar shape, of common origin and structure and bearing specific properties.
The origin of these cells is from specific embryonic layers.
Tissues are classified into four types:

- Epithelial tissue
- Connective tissue
- Muscular tissue
- Nervous tissue

Solution 3.2:

The cardiac muscle is found only in the walls of the heart. Cardiac muscles carry out constant rhythmic contractions to enable the heart to work as a pump and distribute the blood into various parts of the body.

Solution 3.3:

Matrix of Areolar tissue contains various types of cells. These cells include macrophages, mast cells etc. and they help to destroy organisms and provide protection from infection.

Solution 3.4:

The cardiac muscles carry out constant rhythmic contractions to enable the heart to work as a pump and distribute the blood into the various parts of the body.

Solution 3.5:

- Tissue which connects muscle to bone
  Ligaments

- Tissue present in the brain
  Nervous tissue

- Which tissue stores fats in the body?
  Adipose tissue

- Which tissue forms inner lining of our mouth?
  Squamous epithelium

Solution 3.6:

1. Bone – Connective tissue
2. Skin – Epithelial tissue
3. Living of kidney tubules – Epithelial (Cuboidal) tissue
4. Kidney -Muscular (smooth) tissue