

Science Quiz: Specialized Cells

Grade 6 | Total Marks: 10 | Time: 10 Minutes

Section A: Multiple Choice Questions (5 Marks)

Circle the correct answer.

1. Which cell is shaped like a biconcave disc (sunken in the middle) to carry oxygen?

- a) Neuron
- b) Red Blood Cell
- c) Ciliated Cell

2. What is the main job of a Neuron (Nerve Cell)?

- a) To trap dust and bacteria
- b) To carry electrical messages around the body
- c) To fight off germs

3. Where in the human body would you most likely find Ciliated Cells?

- a) In the brain
- b) In the windpipe (breathing tubes)
- c) In the blood

4. Red blood cells do not have a nucleus. Why?

- a) To make more space to carry oxygen
- b) Because they are dead cells
- c) To help them move faster

5. Ciliated cells have tiny hair-like parts called "cilia." What do these hairs do?

- a) They help the cell swim in the blood
- b) They sweep mucus and dust away from the lungs
- c) They catch electrical signals

6. A scientist observes a leaf and notice that the Palisade cells are shaped like tall, narrow columns and are packed very tightly at the top. Why is this specific structure important?

- a) It helps the leaf stay waterproof so it doesn't drown.
- b) It allows the cells to move around the leaf to find water.
- c) It ensures maximum sunlight is captured by the chloroplasts for photosynthesis.
- d) It makes the leaf taste bitter so animals won't eat it.

7. Root hair cells have a long, finger-like extension. If a plant was grown in very dry soil, how would this extension help the plant survive?

- a) It acts like a spear to dig deeper into the ground to find rocks.
- b) It increases the surface area to absorb as much limited water as possible.
- c) It stores extra sunlight to keep the roots warm at night.
- d) It helps the root hair cell turn into a stem if needed.

8. You are looking at two mystery cells under a microscope. Cell A has many green chloroplasts, while Cell B has no chloroplasts but has a long, thin projection. Which statement is correct?

- a) Cell A is a root hair cell; Cell B is a palisade cell.
- b) Both cells are found in the roots to help the plant stay anchored.
- c) Cell A is a palisade cell (for light capture); Cell B is a root hair cell (for water uptake).
- d) Neither cell belongs to a plant because they don't look the same.

Section B: True or False (5 Marks)

Write **T** if the statement is true and **F** if the statement is false.

#	Statement	T / F
1.	Neurons are very long so they can carry messages over long distances.	
2.	Red blood cells use hemoglobin to grab onto oxygen.	
3.	Ciliated cells are found in the stomach to help digest food.	
4.	A neuron sends messages using tiny electrical pulses.	
5.	Red blood cells are the only cells in the body that carry dust.	
6.	Root hair cells do not contain chloroplasts because they live underground where there is no light for photosynthesis.	
7.	Palisade cells have a very small vacuole because they do not need to store any water or cell sap.	

