



SPECIALIZED CELL

Biology 5090

Name: Class:

I. Multiple Choice

Instruction: Choose the BEST answer from the choices provided in each number.

1. Which statement is true about the red blood cells.

- A They contain a nucleus.
- B They contain no nucleus.
- C They have a regular shape.
- D They are made up of lignin.

2. What differentiation is found in the structure of root hair cells to be specialized cells?

- A It has a rectangular shape.
- B It has elongation or protrusion.
- C It has a biconcave shape.
- D It is made up of lignin.

3. The differentiation in specialized cells like the red blood cell, xylem, and root hair cell increases which property in the choices below.

- 1. Increases the surface area to volume ratio.
- 2. Increases the absorption of substances.
- 3. Decreases the surface area to volume ratio.
- 4. Decreases the absorption of substances.

- A 1 and 2 B 1 and 3 C 2 and 3 D 2 and 4

4. Which differentiation describes the xylem vessel?

- A It is made up of lignin.
- B It contains no nucleus.
- C It has elongation or protrusion.
- D It has a biconcave shape.

5. The absence of a nucleus in red blood cells make them efficient

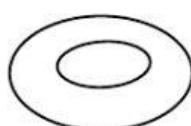
- A in fighting bacterial infection.
- B in transporting Oxygen to the body cells.
- C in absorbing water and mineral salts.
- D in transporting food to all parts of the body.

[5]

II. Structured Questions

Instruction. Answer ALL questions.

1. This is a cell.



a(i) Name the specialized cell [1]

(ii) Give its function

.....[1]

(iii) Name the part that is missing.

..... [1]

(iv) Describe the importance of its missing part to its function.

.....
.....[2]

2. Matching Type

I. Connect the specialized cell to its description.

Specialized cell

Description

Root hair cell

- It has no nucleus to have more space for Oxygen

Xylem vessel

- It has elongation for better absorption of water and mineral salts

Red Blood Cell

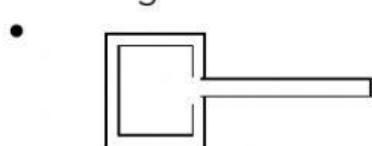
- It has lignified wall that serves as a mechanical support

II. Connect the diagram to its corresponding name.

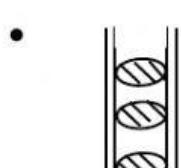
Cell

Red blood cell

Diagram



Root hair cell



Xylem vessel

