

ARMY BURN HALL COLLEGE FOR GIRLS ABBOTTABAD

ENTRY TEST – 2022

CLASS: JC

SUBJECT: BIOLOGY

TIME: 1 HR

MAX MARKS:

1 Which structures are present in plant cells but **not** in animal cells?

- A cell membrane, cytoplasm, chloroplasts
- B cell wall, chloroplasts, sap vacuole
- C cell wall, cell membrane, cytoplasm
- D cytoplasm, nucleus, chloroplasts

2 A piece of plant tissue is transferred from a beaker of water into a concentrated sugar solution.

Which row describes what happens?

	movement of water	volume of tissue cells
A	into the cells	decreases
B	into the cells	increases
C	out of the cells	decreases
D	out of the cells	increases

3 Which statements about active transport are correct?

- 1 Ions move from a region of high concentration to a region of low concentration.
- 2 Ions move across the cell membrane.
- 3 Energy released during respiration is used to move ions into or out of a cell.

A 1, 2 and 3 B 1 and 2 only C 1 and 3 only D 2 and 3 only

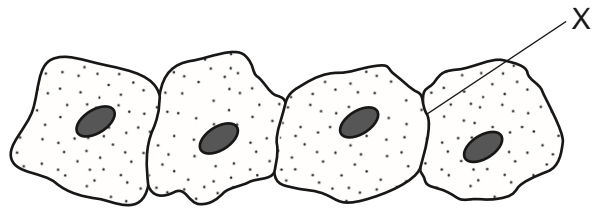
4 What is a correct description of enzymes?

- A biological catalysts made of lipids
- B biological catalysts made of proteins
- C catalysts that slow down chemical reactions and are changed by the reaction
- D catalysts that speed up chemical reactions and are changed by the reaction

5 Which characteristic do all living organisms show?

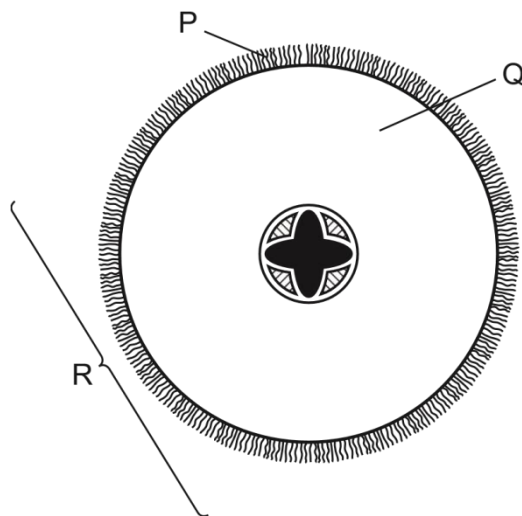
- A breathing
- B excretion
- C photosynthesis
- D tropism

6 The diagram shows some animal cells, as seen under the microscope.



What will be present at X?

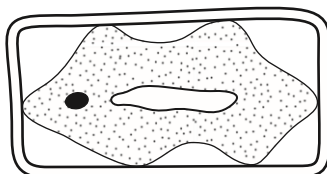
- A one cell membrane
 - B one cell wall
 - C two cell membranes
 - D two cell walls
- 7 The diagram shows a section through a root.



What are the levels of organisation of the labelled structures?

	cell	organ	tissue
A	P	Q	R
B	P	R	Q
C	Q	R	P
D	R	Q	P

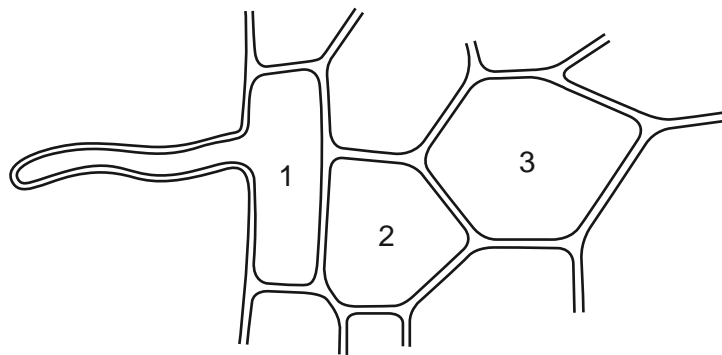
8 The diagram shows a plant cell after being placed in a solution for an hour.



What provides the explanation for the appearance of this cell?

- A The cell has gained water and is turgid.
- B The cell has gained water and is no longer turgid.
- C The cell has lost water and is turgid.
- D The cell has lost water and is no longer turgid.

9 The diagram shows some cells in the root of a plant that is absorbing water from the soil.



How does the water potential of the cell marked 2 differ from the water potentials of the cells marked 1 and 3?

- A higher than cell 1 and higher than cell 3
 - B higher than cell 1 and lower than cell 3
 - C lower than cell 1 and higher than cell 3
 - D lower than cell 1 and lower than cell 3
- 10 Which statement about enzymes is **not** correct?

- A All enzymes are made of protein.
- B Enzymes are biological catalysts.
- C Enzymes are destroyed during the reaction they are involved in.
- D Most human enzymes work best at temperatures between 35°C and 40°C.

Q2. (a) Describe each of the following processes:

(i) active transport

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..... [4]

(ii) osmosis.

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(b) Explain what happens to a red blood cell when it is placed in pure water.

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[Total: 10]

Q2 Describe the functions in a plant of

a. Cell walls (5)

b. Cell membrane (5)