

Smart Edu Hub / Smart Exam Resources

9700 / CAIE A level Biology / Paper-1/ Multiple Choice
Questions

1.29-Plant-Animal-Cells-Set-1-qp

Total Questions: 10

Questions

Question 1:

Which comparison of a phloem companion cell with a B-lymphocyte is correct?

- A Both cell types have proteins embedded in their cell surface membranes.
- B B-lymphocytes have a spherical nucleus but companion cells do not have a nucleus.
- C Companion cells always contain chloroplasts, which are not present in B-lymphocytes.
- D Neither B-lymphocytes nor companion cells possess plasmodesmata.

Question 2:

What is the diameter of a typical plant cell?

- A $4.0 \times 10^1 \mu\text{m}$
- B $1.0 \times 10^0 \mu\text{m}$
- C $4.0 \times 10^2 \text{nm}$
- D $1.0 \times 10^2 \text{nm}$

Question 3:

What are the appropriate units for measuring diameters of alveoli, diameters of white blood cells and the width of cell walls?

	diameters of alveoli	diameters of white blood cells	width of cell walls
A	mm	μm	μm
B	μm	mm	μm
C	μm	μm	nm
D	mm	mm	nm

Questions (Continued)

Question 4:

Which structures are present in a typical plant cell?

	centrioles	cilia	mitochondria	vacuole
A	✓	✓	x	x
B	✓	x	x	✓
C	x	✓	✓	x
D	x	x	✓	✓

key

✓ = present

x = absent

Question 5:

Which structures are found in both animal and plant cells?

- 1 centriole
- 2 lysosome
- 3 nucleolus
- 4 vacuole

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

Questions (Continued)

Question 6:

Which structures are found in both animal and plant cells?

- 1 centriole
- 2 lysosome
- 3 nucleolus
- 4 vacuole

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

Question 7:

The table shows a variety of structures which may be found in cells.

Which row shows structures that could be found in the root cells of a plant?

	plasmodesmata	glycogen granules	Golgi body	mitochondria
A	✓	✓	x	x
B	✓	x	✓	✓
C	x	✓	✓	✓
D	x	x	✓	✓

key
✓ = present
x = absent

Questions (Continued)

Question 8:

Which row is correct for a typical plant cell?

	cell wall	cell diameter	ribosomes
A	cellulose	1-5 μm	80S
B	cellulose	5-40 μm	70S and 80S
C	peptidoglycan	1-5 μm	70S
D	peptidoglycan	5-40 μm	70S and 80S

Question 9:

Which statement supports the fact that mature plant cells can carry out the same role as lysosomes?

- A** A range of hydrolytic enzymes can be found within mature plant vacuoles.
- B** Glycogen, found within vesicles, can be hydrolysed to glucose molecules.
- C** Single membrane-bound vesicles are formed from plant Golgi bodies.
- D** Vesicles, formed from smooth endoplasmic reticulum, contain enzymes.

Questions (Continued)

Question 10:

The statements are all descriptions of cell structures.

- 1 surrounded by a single membrane and enclosing a large fluid-filled space
- 2 surrounded by a single membrane and enclosing inactivated enzymes
- 3 formed by two membranes enclosing a matrix, the inner membrane is folded
- 4 formed by a membrane that has flattened sacs and tubular structures inter-connected throughout the cell
- 5 formed of nucleic acid and protein attached to membranes or free in the cytoplasm

Which row shows the typical cell in which these cell structures are found?

	plant cell	animal cell
A	1, 2, 3 and 4	1, 2, 3 and 5
B	1, 3, 4 and 5	2, 3, 4 and 5
C	2, 4 and 5	1, 4 and 5
D	3, 4 and 5 only	2, 3 and 5 only