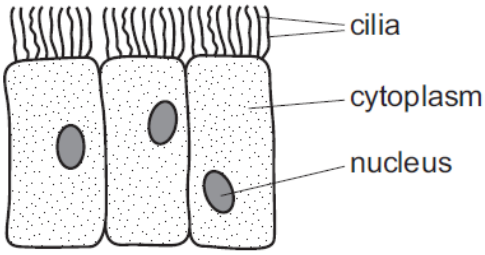
Organisation of the organism – 2021 IGCSE 0610

1. Nov/2021/Paper_11/No.5

The diagram shows some cells.



Where are these cells found?

A alimentary canal

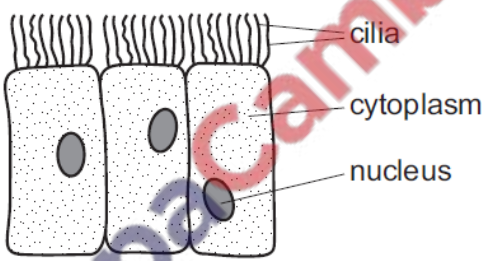
B blood

C bronchus

D plant roots

2. Nov/2021/Paper_12/No.5

The diagram shows some cells.



Where are these cells found?

A alimentary canal

B blood

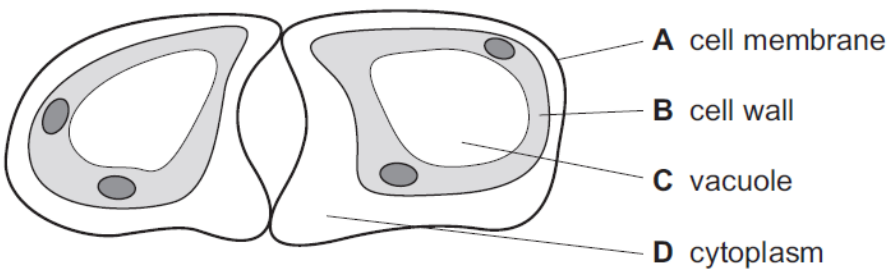
C bronchus

D plant roots

3. Nov/2021/Paper_13/No.4

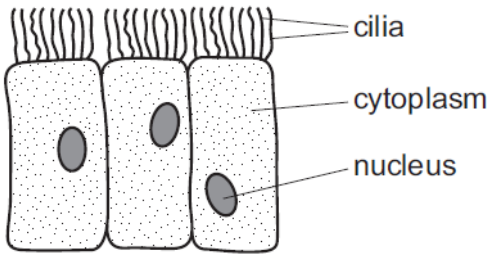
The diagram shows two guard cells.

Which label is correct?



4. Nov/2021/Paper_13/No.5

The diagram shows some cells.



Where are these cells found?

A alimentary canal

B blood

C bronchus

D plant roots

5. Nov/2021/Paper_13/No.6

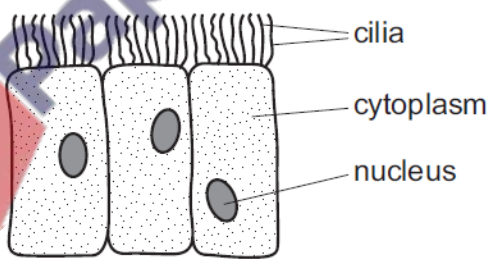
A student draws a root hair cell. The actual length of the cell is 0.8 mm and the drawing of the cell is 80 mm long.

What is the magnification of the student's drawing?

A ×0.001 **B** ×0.01 **C** ×10 **D** ×100

6. Nov/2021/Paper_21/No.5

The diagram shows some cells.



Where are these cells found?

A alimentary canal

B blood

C bronchus

D plant roots

7. Nov/2021/Paper_22/No.6

Which statement about diffusion is correct?

A The process requires energy from respiration.

B The particles must cross a cell membrane.

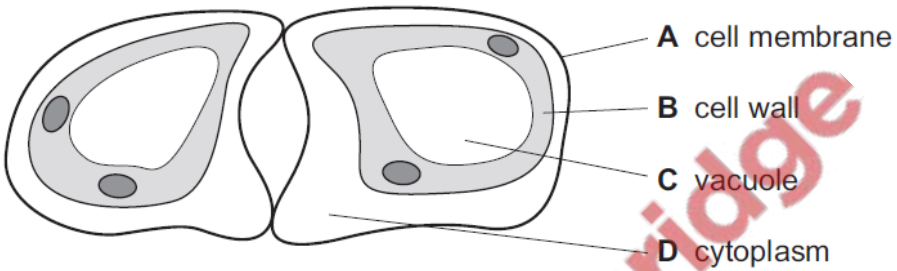
C The net movement of particles is up a concentration gradient.

D The process involves the random movement of particles.

8. Nov/2021/Paper_23/No.3

The diagram shows two guard cells.

Which label is correct?



9. Nov/2021/Paper_23/No.4

The length of a mitochondrion in a photomicrograph is 15 mm.

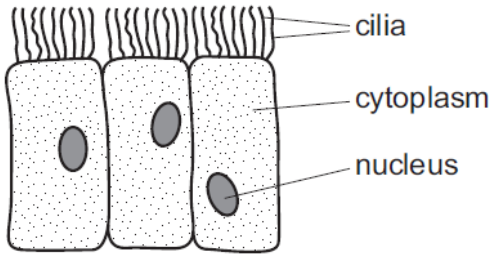
The actual length of the mitochondrion is 3 μm.

What is the magnification of the photomicrograph?

A ×5 **B** ×45 **C** ×5000 **D** ×45 000

10. Nov/2021/Paper_23/No.5

The diagram shows some cells.



Where are these cells found?

A alimentary canal

B blood

C bronchus

D plant roots

11. Nov/2021/Paper_23/No.16

How is the structure of root hair cells related to their function?

A They have chloroplasts for photosynthesis.

B Their cell wall is partially permeable to absorb water by osmosis.

C They have a large surface area to increase the rate of mineral ion uptake.

D Both the cell wall and cell membrane control the active uptake of mineral ions.

12. Nov/2021/Paper_23/No.31

Which row is correct for the type of cell?

	type of cell	nucleus	sets of chromosomes
A	body	diploid	two
B	gamete	diploid	one
C	gamete	haploid	two
D	body	haploid	one

13. Nov/2021/Paper_33/No.7

(a) Fig. 7.1 is a diagram of an animal cell.

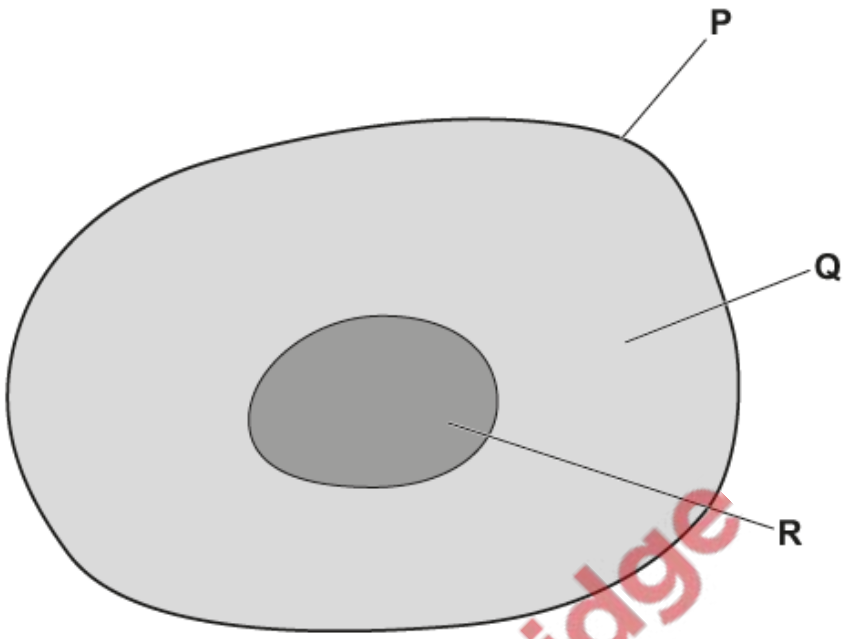


Fig. 7.1

Complete Table 7.1 by stating the functions of the structures labelled in Fig. 7.1.

Table 7.1

structure label	function of the structure
P	
Q	
R	

[3]

(b) Cell structure can be specialised to perform a specific function. A range of animal cell types are shown in Fig. 7.2.

The boxes on the left contain the names of four specialised cells.

The boxes in the middle contain diagrams of different specialised cells.

The boxes on the right contain descriptions of functions.

Draw **one** line from each name of a specialised cell to the diagram of that cell.

Draw **one** line from each diagram of a specialised cell to its function.

Two lines have been drawn for you. Draw **six** more lines.

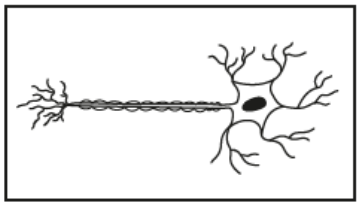
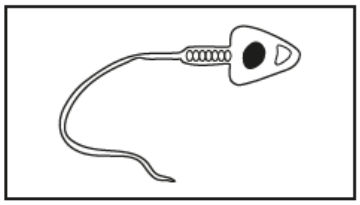
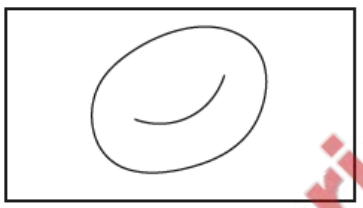
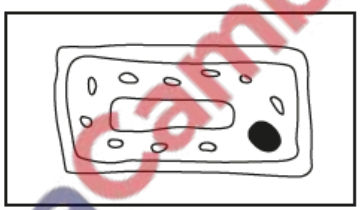
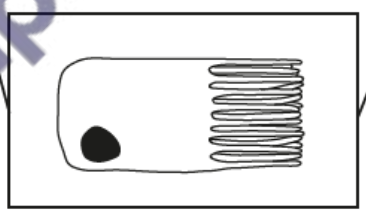
specialised cell names	specialised cell diagrams	functions
ciliated cell		absorption of mineral ions
nerve cell		conduction of impulses
red blood cell		movement of mucus in the trachea
sperm cell		sexual reproduction
		transport of oxygen

Fig. 7.2

[6]

[Total: 9]