Organisation of the organism – 2020 IGCSE 0610

1. March/2020/Paper_12/No.4

What structures can be found in both plant and animal cells?

A cell walls and cell membranes

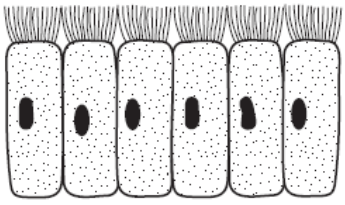
B nuclei and cell walls

C cytoplasm and chloroplasts

D cell membranes and nuclei

2. March/2020/Paper_12/No.5

The diagram shows a sample of material taken from an organism.



Which level of organisation does the sample show?

A cell

B organ

C organ system

D tissue

3. March/2020/Paper_12/No.6

What is the function of a root hair cell?

A absorption

B photosynthesis

C reproduction

D support

4. March/2020/Paper_22/No.6

What is the function of a root hair cell?

A absorption

B photosynthesis

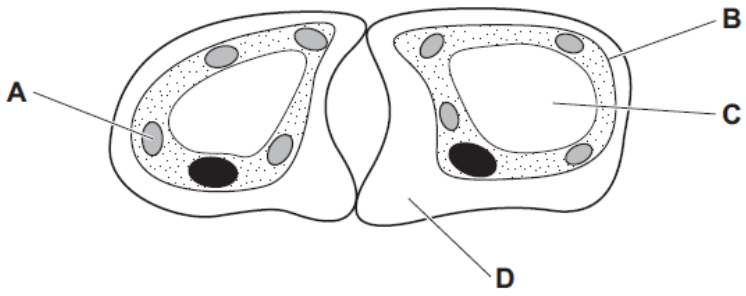
C reproduction

D support

5. June/2020/Paper_11/No.4

The diagram shows two guard cells.

Which label shows the cell wall?



6. June/2020/Paper_11/No.5

What is the correct order to describe an **increasing** level of organisation?

A cell → organ → tissue → organ system

B tissue → cell → organ → organ system

C organ → tissue → cell → organ system

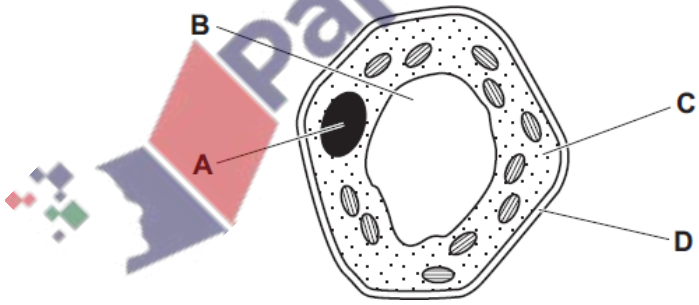
D cell → tissue → organ → organ system

7. June/2020/Paper_12/No.4

The diagram shows a plant cell.

A biologist wants to find out the number of chromosomes it contains.

Which labelled part should be examined more closely?



8. June/2020/Paper_12/No.5

What are leaves examples of?

A cells

B organs

C organ systems

D tissues

9. June/2020/Paper_13/No.4

Onion plant cells swell but do not burst when placed in distilled water.

Which cell component prevents the onion plant cells from bursting?

A cell membrane

B cell wall

C nucleus

D vacuole

10. June/2020/Paper_13/No.5

The diagram shows part of the human body.

Which level of organisation does this diagram show?

A a cell

B an organism

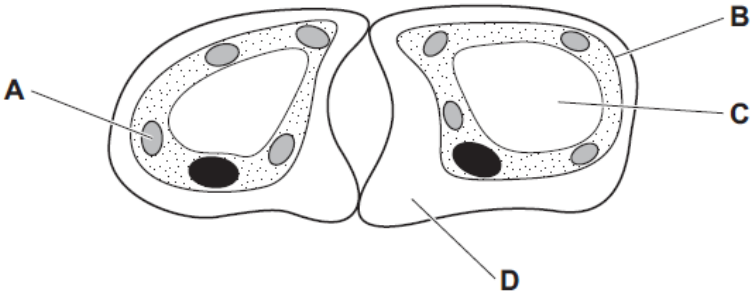
C an organ system

D a tissue

11. June/2020/Paper_21/No.3

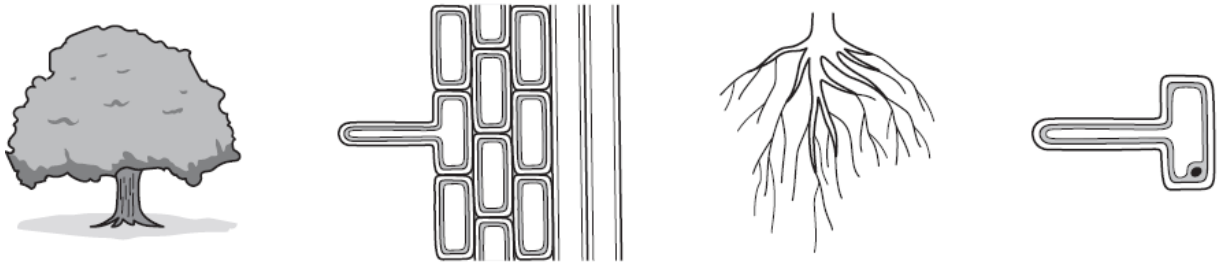
The diagram shows two guard cells.

Which label shows the cell wall?



12. June/2020/Paper_21/No.4

The diagrams show different levels of organisation in a plant. (Not drawn to scale.)



1 2 3 4

Which sequence shows the levels of organisation in order from smallest to largest?

A 4 → 2 → 3 → 1

B 4 → 3 → 1 → 2

C 3 → 4 → 2 → 1

D 3 → 2 → 1 → 4

13. June/2020/Paper_21/No.29

The diagram shows a sperm cell.

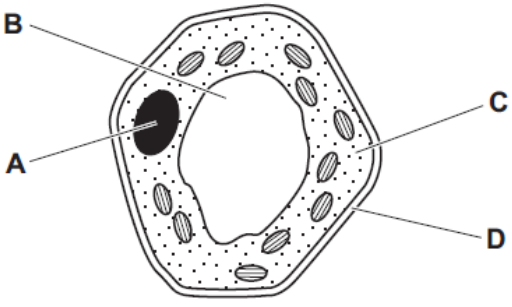
Which part contains enzymes that digest the jelly coat of an egg cell?

14. June/2020/Paper_22/No.3

The diagram shows a plant cell.

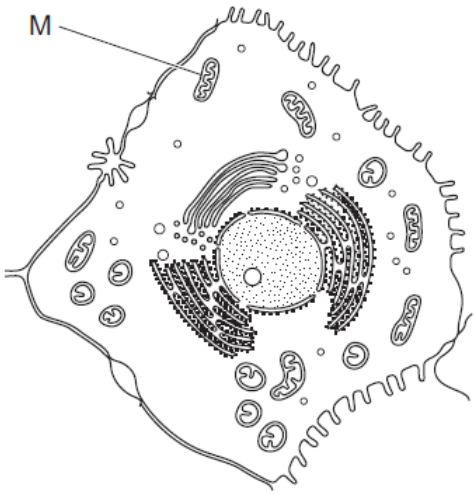
A biologist wants to find out the number of chromosomes it contains.

Which labelled part should be examined more closely?



15. June/2020/Paper_22/No.4

The diagram shows a human liver cell.



The length of structure M on the diagram is 6 mm.

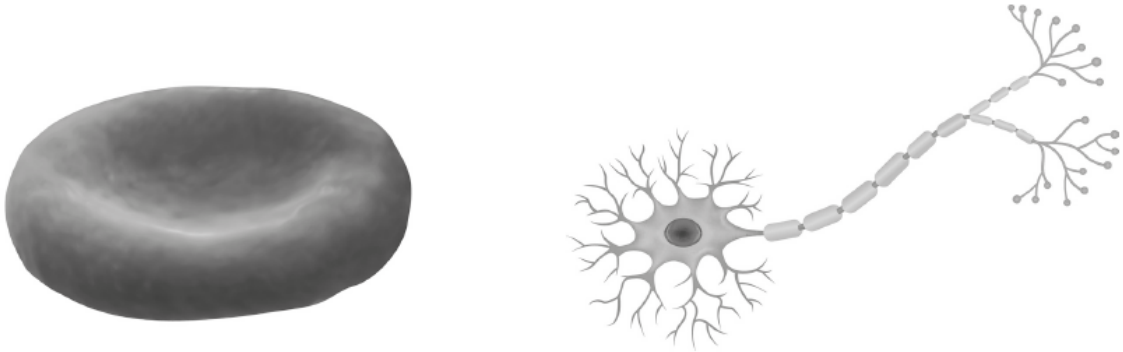
The magnification of the diagram is x 2000.

What is the actual length of M?

A 0.03 μm **B** 3 μm **C** 333 μm **D** 12 000 mm

16. June/2020/Paper_31/No.6

Fig. 6.1 shows images of cells from two different organ systems.



A B

not to scale

Fig. 6.1

(a) State the names of the cells shown in Fig. 6.1.

cell **A** .....

cell **B** .....

[2]

(b) Complete the definition of the term *tissue* by inserting the missing words.

A tissue is a group of cells with similar ..... working together to perform a shared ..... .

[2]

(c) State the names of the organ systems these organs belong to.

brain .....

stamen .....

ovary .....

[3]

[Total: 7]

17. June/2020/Paper_32/No.1

(a) Some substances move into cells by the process of diffusion.

State the name of the outer part of an animal cell that substances move through during diffusion.

..... [1]

(b) Substances can also move by osmosis and active transport.

Table 1.1 shows some of the features of diffusion, osmosis and active transport.

Complete Table 1.1 by placing **one** tick (✓) in each row to show the features of diffusion, osmosis and active transport.

One has been done for you.

Table 1.1

feature	diffusion	osmosis	active transport
involves movement of water only		✓	
always involves movement across a partially permeable membrane			
movement is from a higher solute concentration to a lower solute concentration			
requires energy from respiration			
involves the movement of both gases and solutes			

[4]

(c) Oxygen moves from the air that we breathe into the blood.

State **three** structures of the gas exchange system that oxygen molecules must pass through on their way to the blood.

1 .....

2 .....

3 .....

[3]

[Total: 8]