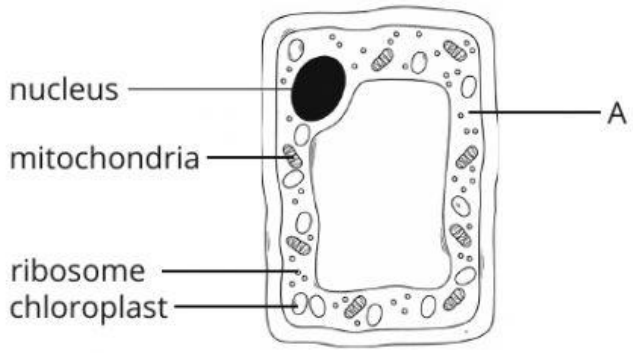
0 1 **Figure 1** shows a plant cell.

Some parts of the cell have been labelled.

Figure 1



0 1 . 1 What is the name of part A?

Tick **one** box.

[1 mark]

- cell membrane ☐
- cell wall ☐
- cytoplasm ☐
- vacuole ☐

0 1 . 2 In which part of the plant would you find the cell in **Figure 1**?

Tick **one** box.

[1 mark]

- leaf ☐
- petal ☐
- root ☐
- seeds ☐

0 1 . 3 Which three parts found in a plant cell are **not** present in animal cells?

Tick **one** box.

[1 mark]

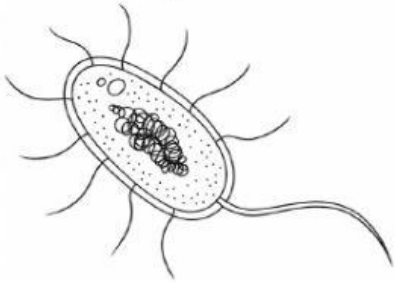
- cell membrane, chloroplasts, cytoplasm ☐
- cell membrane, chloroplasts, vacuole ☐
- cell wall, chloroplasts, cytoplasm ☐
- cell wall, chloroplasts, vacuole ☐

0 1 . 4 Give one function of the nucleus.

[1 mark]

0 1 . 5 **Figure 2** shows a different type of cell.

Figure 2



Give **two** pieces of evidence that suggest the cell in **Figure 2** is a bacterial cell.

[2 marks]

6

0 2 Cardiac muscle is one type of muscle found in the body.

0 2 . 1 What is the correct order of these structures from the simplest level of organisation to the most complex?

Tick **one** box.

[1 mark]

cardiac muscle ⟶ muscle cell ⟶ heart ⟶ circulatory system ☐

cardiac muscle ⟶ muscle cell ⟶ circulatory system ⟶ heart ☐

muscle cell ⟶ cardiac muscle ⟶ heart ⟶ circulatory system ☐

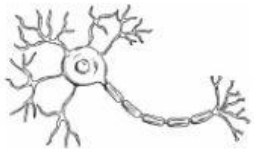
muscle cell ⟶ cardiac muscle ⟶ circulatory system ⟶ heart ☐

0 2 . 2 Which diagram shows a muscle cell?

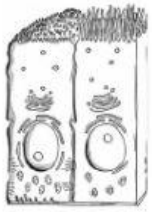
Tick **one** box.

[1 mark]

A ☐



B ☐



C ☐

D ☐

0 2 . 3 Explain why muscles cells contain many mitochondria.

[2 marks]

0 2 . 4 Muscles require a lot of oxygen when they are in use.

Name the type of cell that carries oxygen to the muscles.

[1 mark]

0 2 . 5 Skeletal muscles can work in pairs to move parts of the body.

These pairs of muscles are called antagonistic muscles.

Explain how antagonistic muscles work together.

[2 marks]

7

0 3 The long bones of the skeleton contain a soft tissue called bone marrow.

Bone marrow produces blood cells.

0 3 . 1 Explain how a pathologist could use a light microscope to observe blood cells.

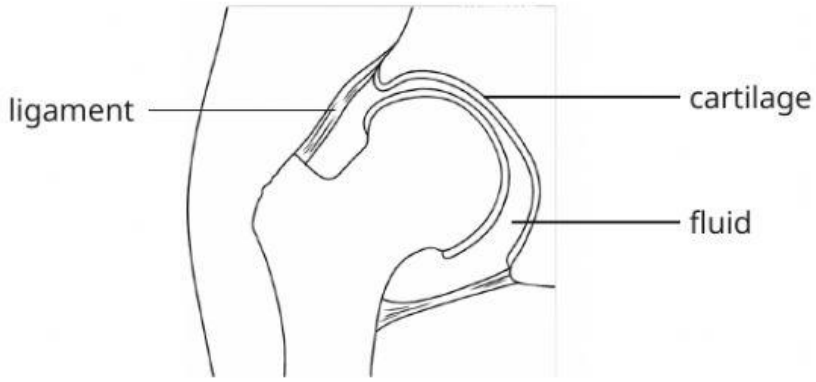
[6 marks]

0 3 . 2 Give **two** other functions of the skeleton.

[2 marks]

0 3 . 3 **Figure 3** shows a hip joint.

Figure 3



What type of joint is a hip joint?

[1 mark]

0 3 . 4 The ligament, fluid and cartilage of the joint are labelled in **Figure 3**.

Explain the role of these structures in the joint.

[4 marks]

13