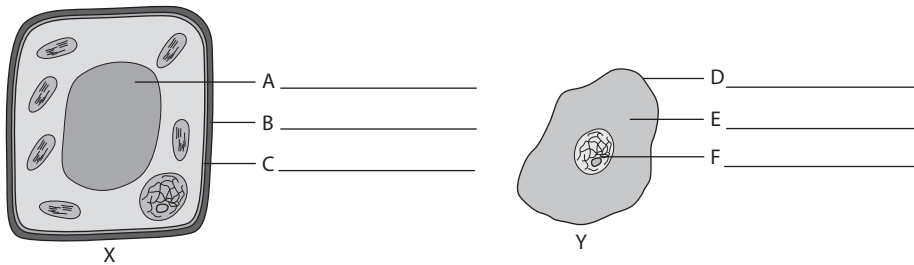


- 1 a) The diagrams below show an animal cell and a plant cell.



i) Which is the plant cell? _____ [1]

ii) Give THREE reasons for your choice in part i) above.

1. _____

2. _____

3. _____ [3]

iii) Label structures A to F on the lines provided. [6]

iv) Identify ONE property of structure D. _____ [1]

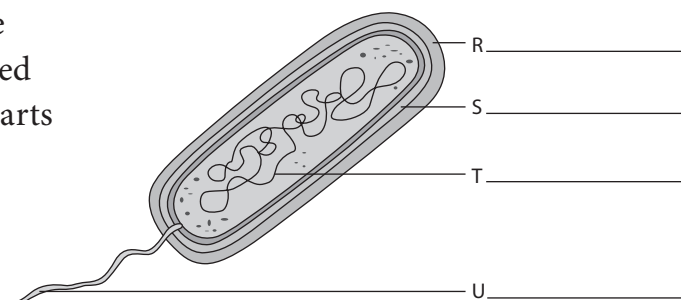
v) Give TWO functions of structure A.

1. _____

2. _____ [2]

vi) Structure F is missing from a particular cell type in humans. Name this cell type.
_____ [1]

b) The diagram shows the structure of a generalised bacterium. Name the parts labelled R to U.



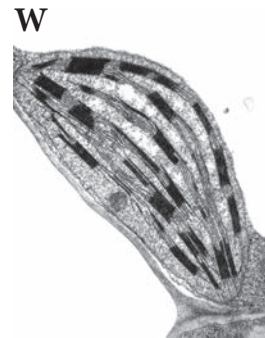
[4]

c) Use lines to match the following structures with their features and functions.

	controls what enters and leaves the cell
cytoplasm	made of cellulose
	controls the functioning of the cell
cell wall	supports the organelles
	supports and protects the cell
cell membrane	jelly-like substance
nucleus	contains genetic information

[7]

d) i) Identify the organelles in the following electron micrographs.



V _____ **W** _____ [2]

ii) Explain why muscle cells in animals contain a greater number of organelle **V** than other cells.

 _____ [2]

iii) Name the green pigment found in organelle **W**. _____ [1]

iv) The cells closest to the upper surface of leaves contain the greatest number of organelle **W**. Explain the reason for this.

 _____ [2]

- 2 a) Explain why cells become specialised in multicellular organisms

[2]

- b) i) What is a tissue?

[1]

- ii) Complete the following table which gives information about THREE different tissue types found in humans.

Name of tissue	What the tissue is composed of	One function of the tissue
	sheets of cells	
muscle tissue		
		conducts nerve impulses

[6]

- iii) Humans have a fourth tissue type known as connective tissue. Give THREE examples of connective tissues found in humans and one function of EACH.

example 1 _____

function _____

example 2 _____

function _____

example 3 _____

function _____

[6]

iv) Link EACH of the following tissue types found in plants with its function or functions.

transports water, minerals and food	
supports non-woody structures when turgid	epidermal tissue
protects surfaces of roots, stems and leaves	photosynthetic tissue
makes food for the plant	packing tissue
supports stems and leaves	vascular tissue
stores food	

[6]

c) Complete the following paragraph by filling in the missing words.

Different tissues are grouped together to form specialised _____. These specialised _____ then work together to form _____, which all work together to form an _____.

[5]

3 a) i) Define diffusion.

[1]

ii) Give FOUR examples to support the following statement: 'Diffusion plays an important part in the lives of living organisms.'

1. _____
2. _____
3. _____
4. _____

[4]