

Name of the Student: _____

Max. Marks : 25 Marks

Time : 25 Minutes

Q1.

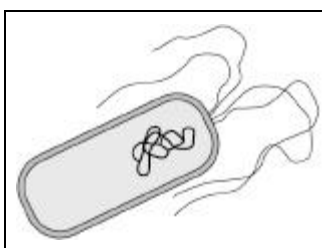
Cells are the building blocks of life.

(a) Draw **one** line from each type of organism to the diagram of one of its cells.

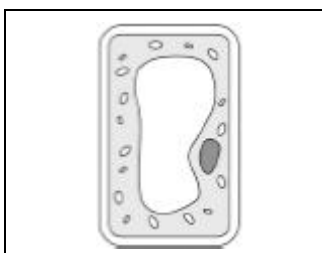
Type of organism

Diagram of one cell

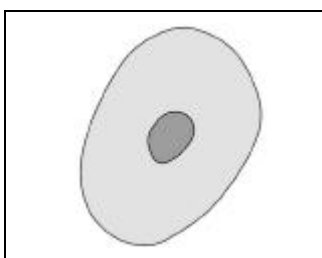
Animal



Bacterium



Plant



(3)

(b) Cells contain structures. These structures have different functions.

Draw **one** line from each function to the correct structure.

Function	Structure
Contains genetic information	Cell membrane
Controls what enters and leaves a cell	Cell wall
Where photosynthesis happens	Chloroplast
	Nucleus

(3)

(c) Chemicals are produced in cells.

Complete the sentences.

Choose answers from the box.

cellulose	DNA	glycogen	starch	urea
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A chemical excreted by animals is _____.

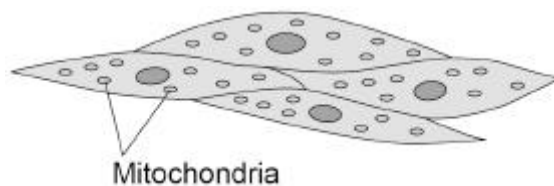
A chemical stored in animal cells is _____.

A chemical stored in plant cells is _____.

A chemical that strengthens plant cell walls is _____.

(4)

The figure below shows a diagram of muscle cells.



(d) Give **one** function of muscle cells.

(1)

(e) Explain how muscle cells are adapted for their function.

Use the figure above.

(2)

(f) One muscle cell was 0.05 mm wide.

When viewed using a microscope the image of the muscle cell was 2 mm wide.

Calculate the magnification used to view the cell.

Use the equation:

$$\text{magnification} = \frac{\text{width of image}}{\text{width of real cell}}$$

Magnification = × _____

(2)

(Total 15 marks)

Q2.

Cigarette smoking is the main cause of cancer in the UK.

- (a) Mutations in cells cause cancer.

Where in a cell do mutations happen?

Tick (✓) **one** box.

Cell membrane

☐

Cytoplasm

☐

Nucleus

☐

(1)

- (b) Why do some cancers develop into large tumours?

Tick (✓) **one** box.

Cells never stop dividing

☐

Cell respiration is slowed down

☐

Enzyme activity is stopped

☐

(1)

Cigarette smoking has been linked to many different types of cancer.

- (c) Lung cancer is the most common type of cancer caused by smoking.

Suggest **one** reason why.

(1)

- (d) A person with lung cancer can develop secondary cancers in other parts of the body.

Describe how this can happen.

(1)

- (e) Sometimes a person may need a lung transplant.

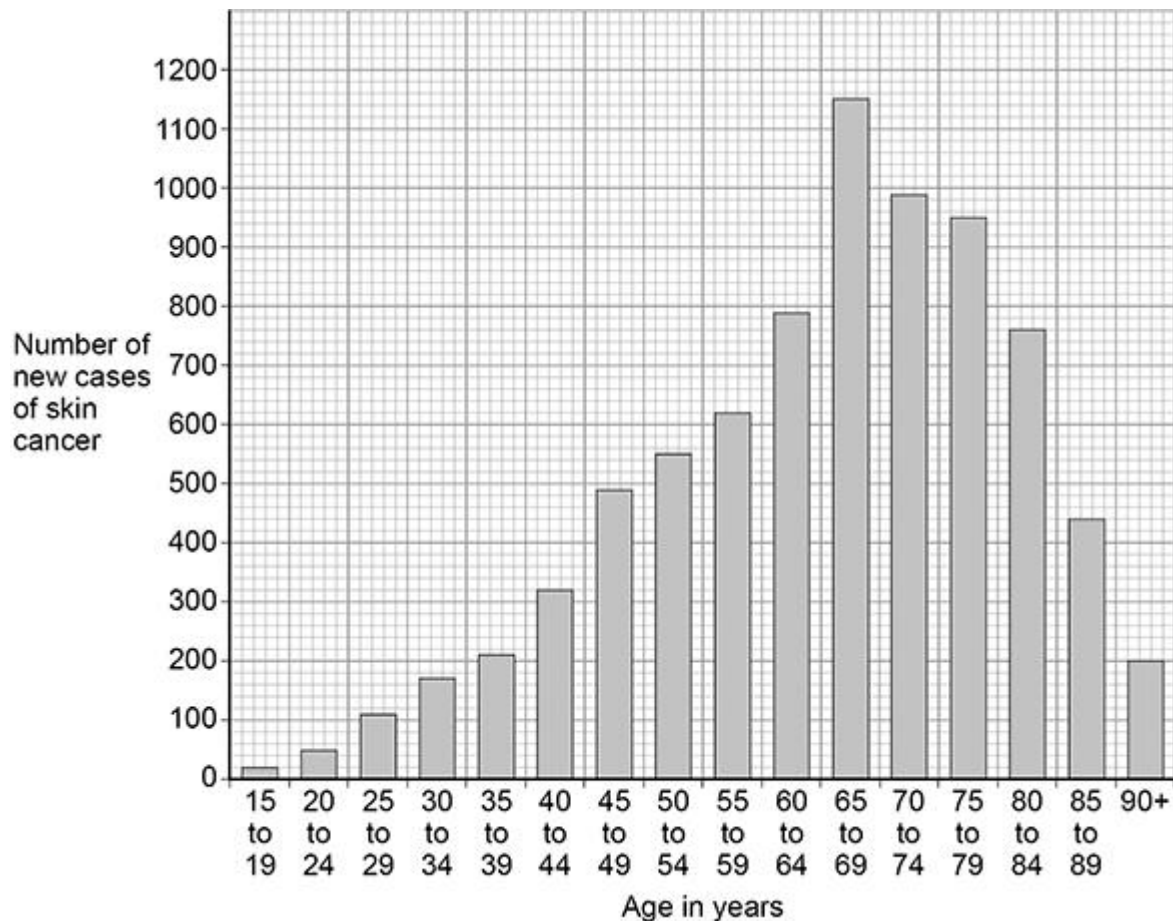
The National Health Service (NHS) will **not** offer a lung transplant to a person who smokes.

Suggest **one** reason why.

(1)

The figure below shows data about skin cancer in males for different age groups in the UK.

The data shows the number of new cases of skin cancer in one year.



- (f) How many more new cases of skin cancer are there in males aged 40 to 44 than in males aged 15 to 19?

Number of new cases = _____

(1)

- (g) There are no new cases of skin cancer diagnosed in males younger than 15 years of age.

Suggest **one** reason why.

(1)

(h) Give **one** conclusion from the data in the figure above.

(1)

(i) Survival rates for all types of cancers have improved over the last 20 years.

Suggest **two** reasons why.

1

2

(2)

(Total 10 marks)