Practice Question Set For GCSE
Subject : Biology
Paper-1 Topic: B1 Cell Biology

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Name of the Student:_____
Max. Marks : 24 Marks **Time : 24 Minutes**

Q1.

This question is about organisation in living organisms.

(a) Write the biological structures from the box in the correct size order.

cell	**nucleus**	**organ**	**tissue**

Smallest
↓
Largest

_____
_____
_____
_____

(3)

(b) Name **one** animal organ.

_____

(1)

(c) Which is a plant tissue?

Tick (✓) **one** box.

- Flower ☐
- Leaf ☐
- Phloem ☐
- Root ☐

(1)

Figure 1 shows part of a root viewed using a microscope.

Figure 1

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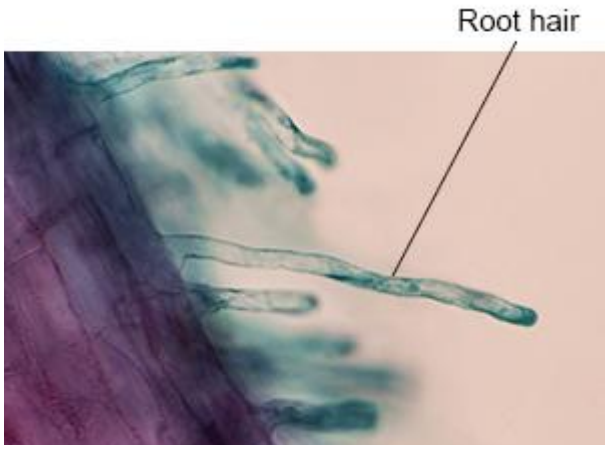


(d) Explain how a root hair cell is specialised for its function.

_____

_____

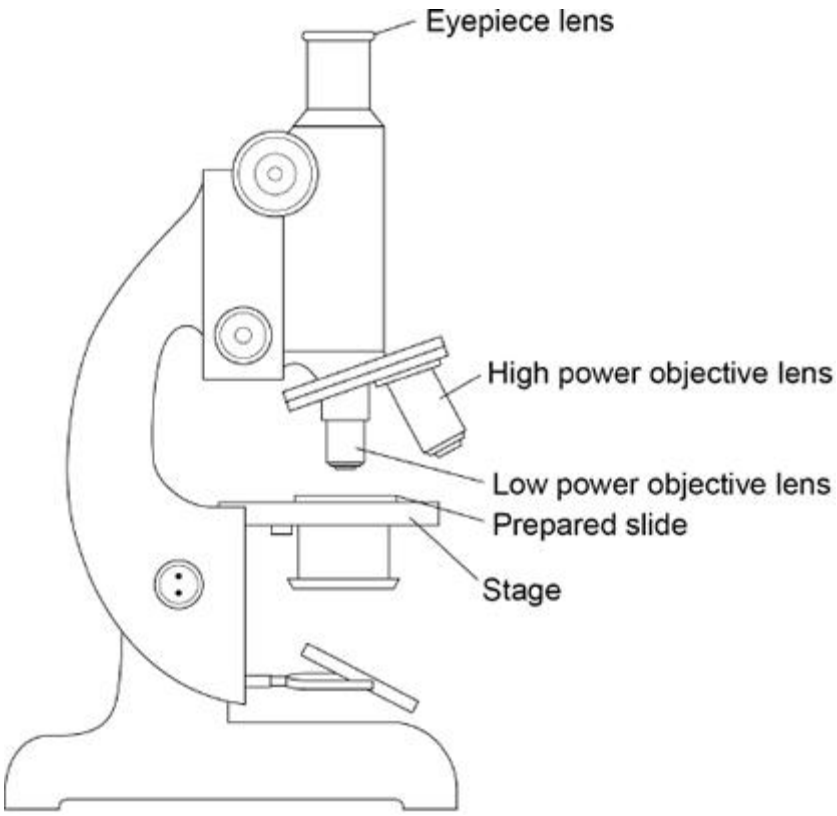
_____

_____

(2)

Figure 2 shows a microscope.

Figure 2



(e) It is easier to view the cells using the low power objective lens first.

Give **one** reason why.

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_____

_____

(1)

(f) To focus the image the objective lens should be moved away from the stage.

Give **one** reason why the objective lens should **not** be moved towards the stage.

_____

_____

(1)

(g) The image of the prepared slide in **Figure 2** is viewed with the ×10 objective lens.

The total magnification is ×50

What was the power of the eyepiece lens used?

_____

_____

Power of eyepiece lens = × _____

(1)

(h) Root hair cells do **not** contain chloroplasts.

Suggest **one** reason why.

_____

_____

(1)

(Total 11 marks)

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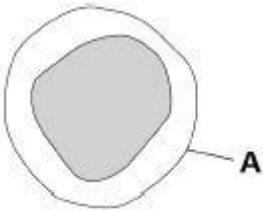
Q2.

Figure 1 shows one type of white blood cell.

Figure 1



(a) What is structure **A**?

Tick **one** box.

- Cell membrane ☐
- Cell wall ☐
- Cytoplasm ☐
- Nucleus ☐

(1)

(b) White blood cells help to defend the body against pathogens.

How do the white blood cells do this?

Tick **three** boxes.

- Clone pathogens ☐
- Engulf pathogens ☐
- Produce antibiotics ☐
- Produce antibodies ☐
- Produce antitoxins ☐
- Produce toxins ☐

(3)

Measles is a serious disease. A person can die from measles.

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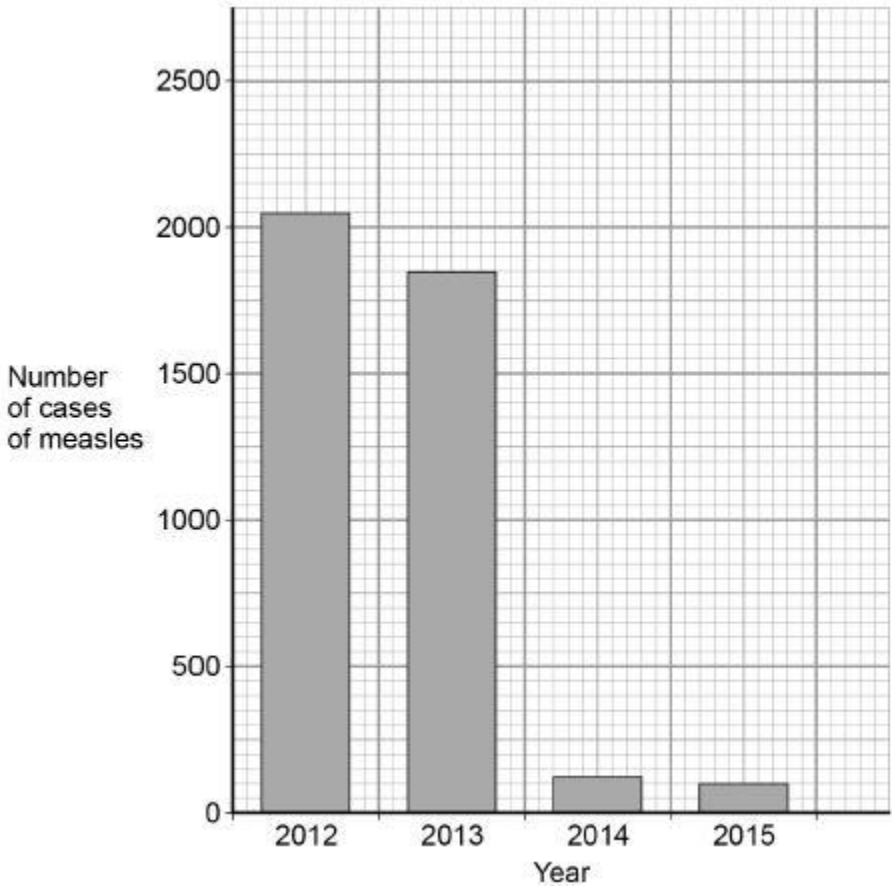
Figure 2 shows the number of cases of measles in England and Wales between 2012 and 2015

Figure 2



(c) Use **Figure 2** to calculate the decrease in the number of cases of measles between 2012 and 2015

_____

_____

Answer = _____ cases

(2)

(d) Suggest **one** reason for the decrease in the number of cases of measles between 2012 and 2015

_____

_____

(1)

(e) Antibiotics **cannot** be used to treat measles.

Suggest why.

_____

_____

(1)

(f) Gonorrhoea is a disease caused by a bacterium.

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Gonorrhoea **can** be treated with antibiotics.

Give **one** other way to control the spread of gonorrhoea.

_____

_____

(1)

A scientist investigated how effective different antibiotics were at killing gonorrhoea bacteria.

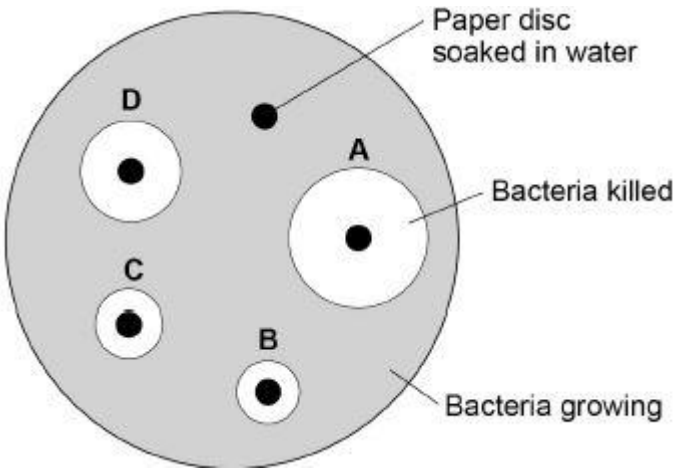
This is the method used.

1. Grow gonorrhoea bacteria on agar in a Petri dish.
2. Place one paper disc soaked in water onto the agar.
3. Place four other paper discs, each soaked in a different antibiotic, **A**, **B**, **C**, and **D**, onto the agar.
4. Use the same sized paper discs and the same concentration of each antibiotic.
5. Incubate the Petri dish for 3 days.

Figure 3 shows the scientist's results.

A clear area around the disc means the antibiotic has killed the bacteria.

Figure 3



(g) Give **one** control variable the scientist used.

_____

_____

(1)

(h) Suggest why **one** disc was soaked in water.

_____

_____

(1)

(i) Which antibiotic in **Figure 3** would be the best to treat gonorrhoea?

Give a reason for your answer.

Antibiotic _____

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Reason _____

_____

(2)

(Total 13 marks)

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