

AQA, OCR, Edexcel

GCSE Science

GCSE Biology

Blood Answers

Name:

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Total Marks: /25

Q1: What is the role of red blood cells?

A= Transport Oxygen

(1 mark)

Q2: What is the role of white blood cells?

A= Protect from disease

(1 mark)

Q3: What causes red blood cells to be red?

A= Haemoglobin

(1 mark)

Q4: Explain the role haemoglobin.

A= Oxygen movement

(1 mark)

Q5: Explain how red blood cells are able to transport oxygen around the body efficiently?

A= marks to be awarded for any 2 of the following:

- Large number of red blood cells
- Cells are small/ pass through into capillaries
- Shape- Flattened disc/ biconcave
- Increased surface area – Rapid diffusion
- Haemoglobin

(2 marks)

Q6: In order to protect from disease white blood cells engulf pathogens. What is this process called?

A= Phagocytosis

(1 mark)

Q7: How do white blood cells identify a pathogen in the body?

A= Antigens

(1 mark)

Q8: Blood plasma makes up around 55% of blood and transports dissolved molecules around the body. Give an example of substances in plasma.

A= Marks to be awarded for any 3 of the following:

- Hormones
- Antibodies
- Nutrients- water/ glucose/ amino acids/ minerals/ vitamins
- Waste products- carbon dioxide/ urea

(3 marks)

Q9: What is the role of platelets in the blood?

A= Clotting/ seal wounds

(1 mark)

Q10: Explain how and why a scab forms.

A= 2 marks to be awarded for the following:

- Platelets arrive a site
- Fibrogen forms a mesh over the wound
- Red blood cells stick to mesh
- Clot forms

1 mark to be awarded for why: protection while heals

(3 marks)

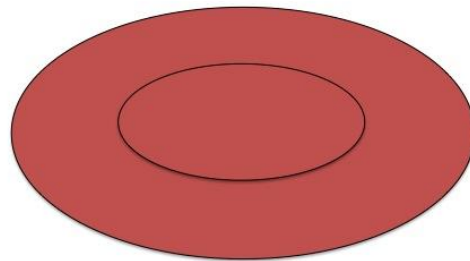
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Q11: What is the main difference between a red blood cell and other cells in the body?

A= No nucleus

(1 marks)

Q12: Draw a red blood cell.



A= 1 mark for accurate shape in drawing

(1 mark)

Q13: What are the 2 types of white blood cells?

1: Phagocyte

2: Lymphocyte

A= 1 mark awarded for each of the above

(2 marks)

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Q14: Blood transfusion is a life saving medical procedure. Evaluate the risk of using blood products and explain what can be done to minimise the risk.

A= 3 marks for any 3 of the following risks

- Infection
- Wrong blood groups
- Immune response
- Clotting

3 marks for any 3 of the following risk preventions:

- Screen blood donated
- Test blood group – donor/ patient
- Only give if necessary
- Use anticoagulants/ anti clotting

(6 marks)