AQA GCSE Biology

B2 six mark questions

In GCSE specifications that require candidates to produce written material in English, candidates must do the following:
■ ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear
■ select and use a form and style of writing appropriate to purpose and to complex subject matter
■ organise information clearly and coherently, using specialist vocabulary when appropriate.

In these questions, students are required to produce extended written material in English, and will be assessed on the quality of their written communication as well as the standard of the scientific response.

Students will be required to:
- use good English
- organise information clearly
- use specialist vocabulary where appropriate.

The following general criteria should be used to assign marks to a level:

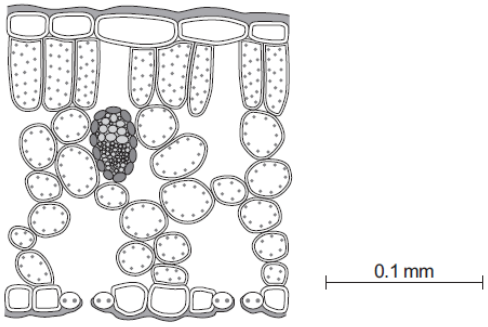
Level 1: Basic	Level 2: Clear	Level 3: detailed
Knowledge of basic information Simple understanding The answer is poorly organised, with almost no specialist terms and their use demonstrating a general lack of understanding of their meaning, little or no detail. The spelling, punctuation and grammar are very weak.	Knowledge of accurate information Clear understanding The answer has some structure and organisation, use of specialist terms has been attempted but not always accurately, some detail is given There is reasonable accuracy in spelling, punctuation and grammar, although there may still be some errors.	Knowledge of accurate information appropriately contextualised Detailed understanding, supported by relevant evidence and examples Answer is coherent and in an organised, logical sequence, containing a wide range of appropriate or relevant specialist terms used accurately. The answer shows almost faultless spelling, punctuation and grammar.

The following information applies to all questions

In this question you will be assessed on using good English, organising information clearly and using specialist terms where appropriate.

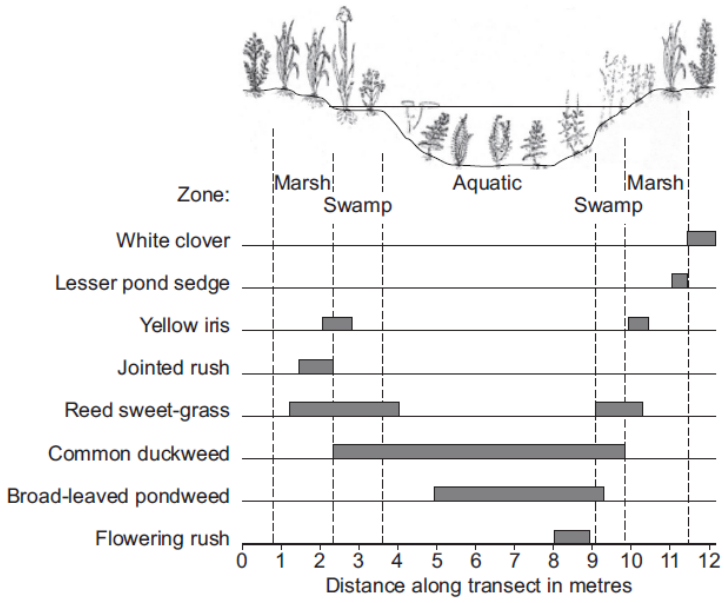
1. The digestive system is a group of organs which changes food from insoluble into soluble molecules. Soluble molecules can be absorbed into the bloodstream. Some foods cannot be digested.
   Describe the functions (jobs) of the organs in the digestive system.
   Nelson Thornes, AQA Science Biology, end of chapter questions

Diagram 2

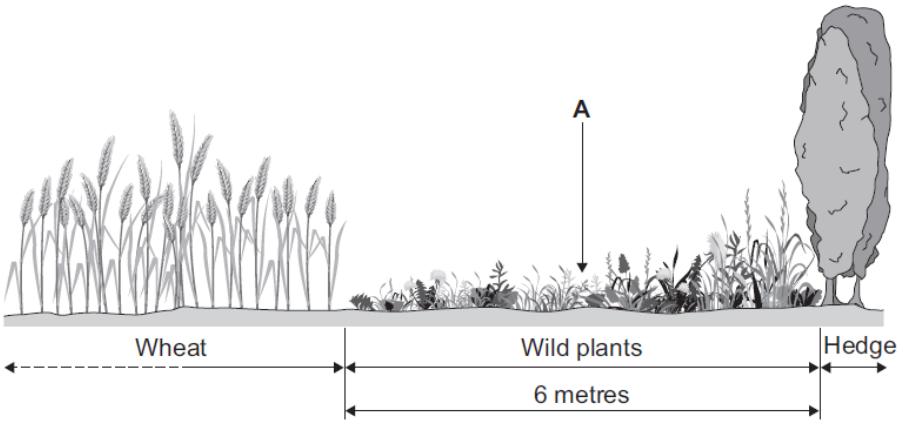


2. **Diagram 2** shows a section through a plant leaf.
Describe the structure of the leaf and the functions of the tissues in the leaf.
You should use the names of the tissues in your answer.
AQA Biology Unit 2 January 2013

3. Some students investigated the distribution of some of the plants growing in and around a shallow stream. They sampled along a transect line.
The diagram shows their results.
Describe how you would use a 12-metre x 12-metre quadrat frame and a 30-metre tape measure to obtain data similar to the data shown in the diagram. You should include details of how you would make sure that you would obtain valid results.
AQA Biology Unit 2 June 2012



4. Farmers grow crops of wheat.
Wild plants grow, in a border 6 metres wide, between the edge of the crop and the hedge around a field.
A teacher asked a student to investigate the distribution of the different species of wild plants between the edge of the wheat crop and the hedge.



The student wrote a simple plan:

- use a 15 cm x 15 cm quadrat
- put the quadrat at **A**
- count the plants in the quadrat.

The student drew a diagram of the plants in the quadrat.
The student said, 'There are 6 plants between the edge of the wheat crop and the hedge'.
The teacher said the student's plan did **not** give valid results.
Why did the student's plan for collecting data **not** give valid results?
Suggest how the student could improve the plan to give valid results.
AQA Additional Science1 Unit 5 January 2013

5. Different parts of the human digestive system help to break down molecules of fat so that they can be absorbed into the body.
Describe how.
To gain full marks you should refer to:

- the enzyme and where the enzyme is produced
- the products of digestion
- any other chemicals involved.

AQA Biology Unit 2 June 2013

6. Describe the roles of the liver and the pancreas in the digestion of fats.

Nelson Thornes, AQA GCSE Biology, end of chapter questions

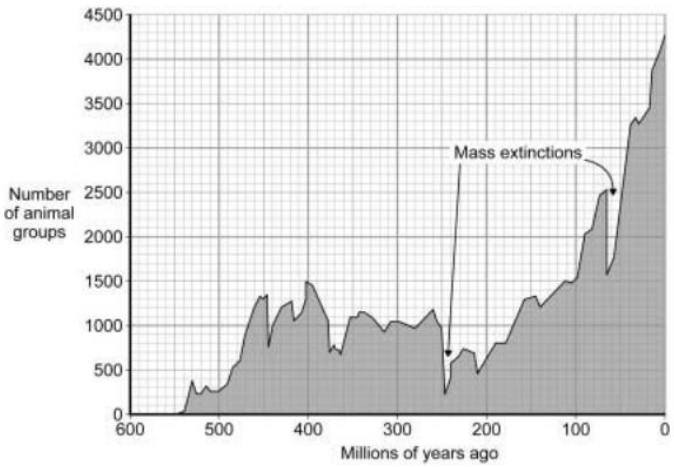
Microorganisms make enzymes. Some of these enzymes can be used in the home and in industry.
How are enzymes used in the home and in industry?
In your answer you should:

- write about different types of enzymes
- describe the reactions the enzymes are used for
- describe how the products of the reactions are used in the home and in industry.

AQA Additional Science 2 Unit 6 June 2013

Embryos can be screened for genetic disorders.
Many people would favour the use of embryo screening for cystic fibrosis but not for polydactyly.
Compare the issues involved in the use of embryo screening for cystic fibrosis and for polydactyly.
You should use your knowledge and understanding of the process and the two conditions.
AQA Additional Science Higher Specimen paper

Describe the different causes of the extinction of organisms.
Your description should include possible reasons for the mass extinctions shown on the graph.



AQA Additional Science Foundation Specimen paper

Herring gull (*Larus argentatus*)

Photograph: © John Howard/Science Photo Library

Lesser black-backed gull (*Larus fuscus*)

Photograph: © John Devries/Science Photo Library

The photographs show two species of gull.
Both species are now found in the UK but the two species cannot interbreed with each other. Scientists believe that these two species have evolved from a common ancestor.
The map shows a view of the Earth from above the North Pole.
The map also shows where these two species are found.
Suggest an explanation for the development of these different species.
AQA Biology Unit 2 June 2012