



Rewarding Learning

General Certificate of Secondary Education
2011–2012

Science: Single Award (Modular)

Human Activity and Health

Module 2

Foundation Tier

[GSC21]

TUESDAY 8 NOVEMBER 2011

2.30 pm–3.15 pm



Centre Number

71	
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Candidate Number

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TIME

45 minutes.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper.

Answer **all seven** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 45.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

For Examiner's use only

Question Number	Marks
1	
2	
3	
4	
5	
6	
7	

Total Marks

--



1 (a) (i) Complete the following sentences.

Choose from:

nitrogen : bronchitis : addiction : carbon monoxide

Smoking can harm the body. Harmful substances in cigarette smoke include nicotine and _____. Tar is also present and can cause _____. [2]

(ii) What is the effect of nicotine on the body?

_____ [1]

(b) Drugs can also cause harm. Using lines, link each type of drug to its main effect.

Drug	Effect
Cocaine	Makes users angry
Cannabis	Gives users a 'high'
	Makes users feel relaxed

[2]

Examiner Only	
Marks	Remark

(c) John enjoys drinking alcohol but thinks that he may be drinking too much and harming his body.

Circle two things that he could do to limit his alcohol intake.

drink coffee

stick to recommended limits

drink low alcohol drinks

binge drink at weekends

[2]

Examiner Only	
Marks	Remark

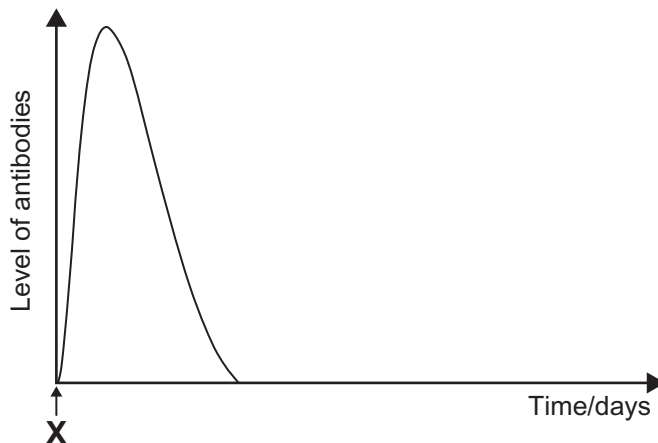
2 (a) Name a disease caused by a virus.

Choose from:

thrush polio tuberculosis

_____ [1]

(b) The following graph shows how the number of antibodies in the blood changes during passive immunity.



(i) State what is given at **X** to produce passive immunity.

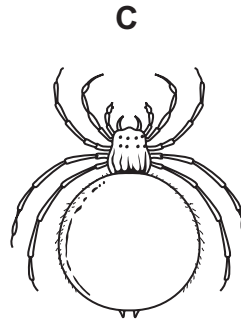
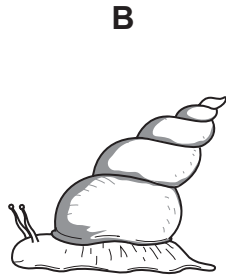
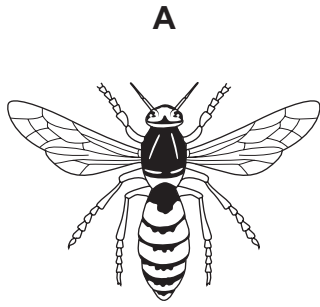
Choose from:

booster antibodies blood

_____ [1]

Examiner Only	
Marks	Remark

3 (a) Use the key below to identify each of the following animals.

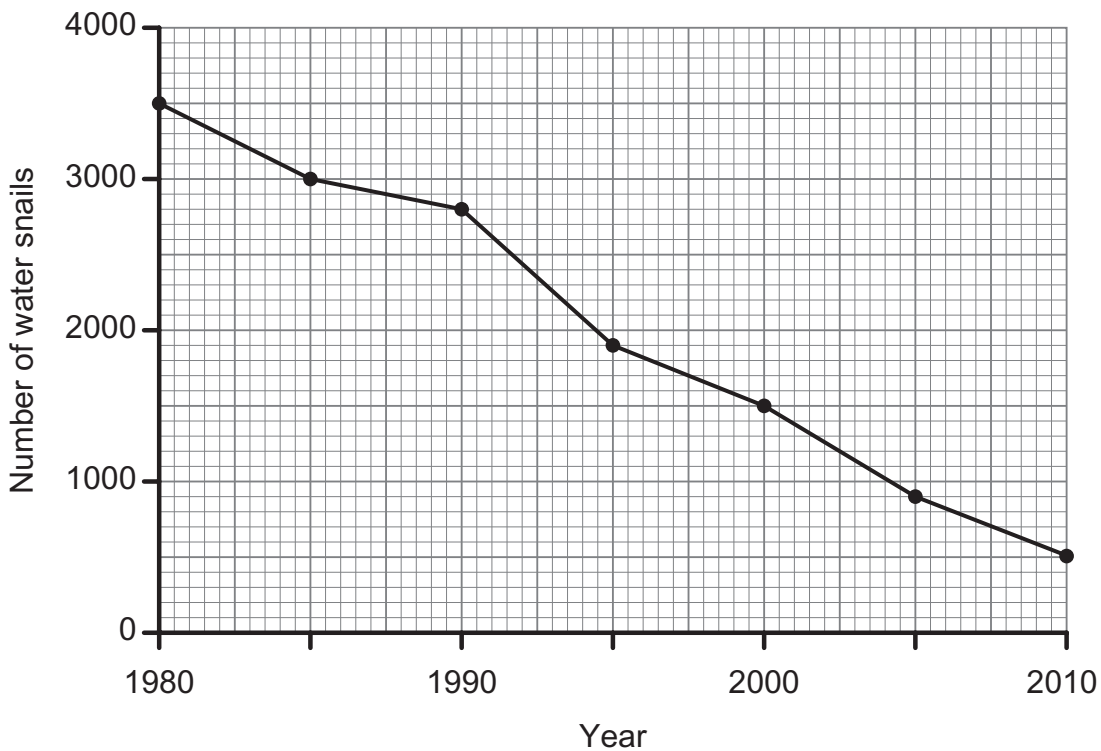


Place a letter (**A**, **B** or **C**) in the correct box beside the animal's name.

- | | | |
|-----------------|-------------|--|
| 1 Shell present | Water snail | <input style="width: 100px; height: 20px;" type="text"/> |
| Shell absent | go to 2 | |
| 2 Wings present | Insect | <input style="width: 100px; height: 20px;" type="text"/> |
| Wings absent | Spider | <input style="width: 100px; height: 20px;" type="text"/> |

[2]

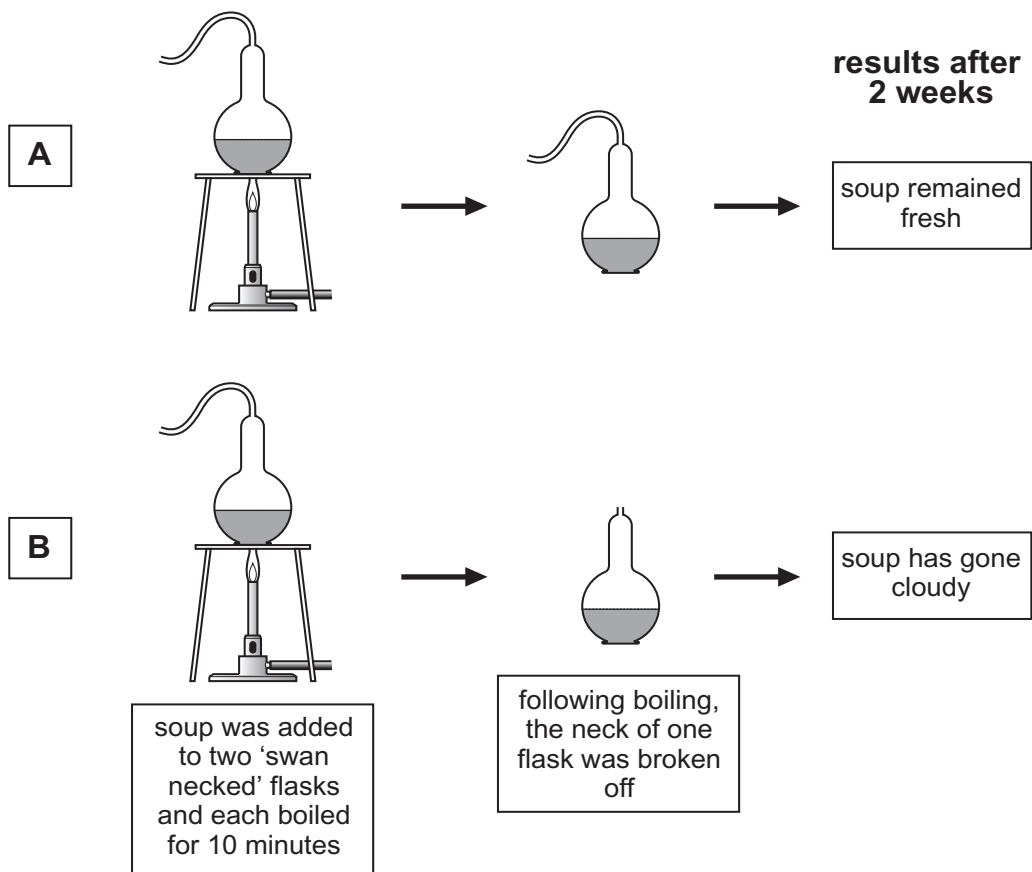
(b) The graph below shows the results of a survey of water snails in a Northern Ireland river over the last thirty years.



Examiner Only	
Marks	Remark

4 The following experiment was carried out in a science class.

Examiner Only	
Marks	Remark



Adapted from: © GCSE biology for CCEA by R McIlwaine & J Napier, page 69, published by Hodder & Stoughton, 2003. ISBN 9780340858257. Reproduced by permission of Hodder Education

(a) Suggest **one** reason why the soup was boiled for 10 minutes at the start of the experiment.

_____ [1]

(b) Explain fully the result for the soup in diagram A.

 _____ [2]

(c) Suggest two things that must be done to ensure that the results of this experiment are valid (fair test).

1. _____
 2. _____ [2]

(d) Name the scientist who carried out a similar experiment using 'swan neck' flasks.

_____ [1]

6 Fig. A shows newly emerged seedlings surrounding their parent tree.

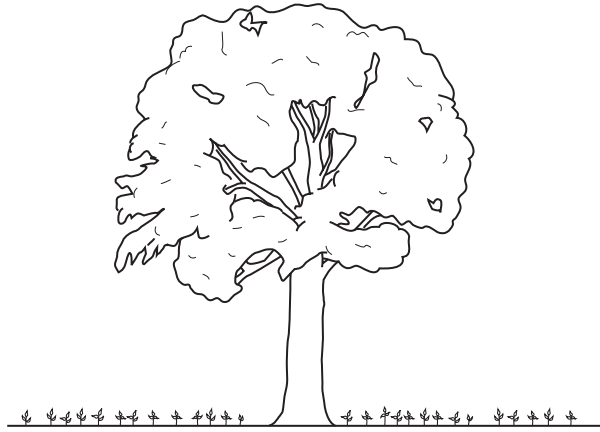


Fig. A

Fig. B shows the seedlings a year later under the same tree.

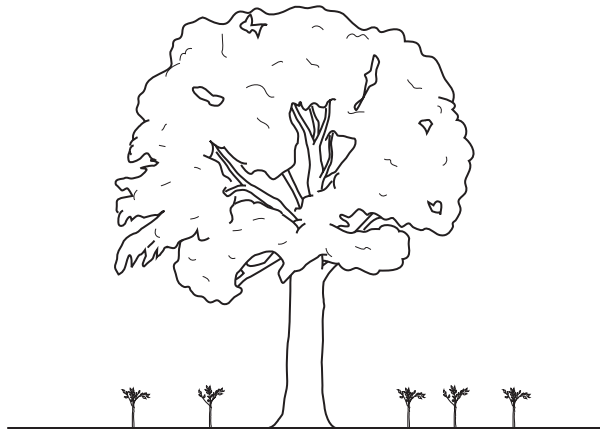


Fig. B

Describe and explain the differences in the number and distribution of seedlings between Figs. A and B.

[4]

Examiner Only	
Marks	Remark

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(Questions continue overleaf)

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