Centre No.					Pape	r Refer	ence			Surname	Initial(s)
Candidate No.						/	1	В	Signature		

Paner Reference(s)

5627/1B 5657/1B

Edexcel GCSE

Science: Single Award B (1535)

Science: Double Award B (1536)

Biology B (1529)

(Modules 1 and 2)

Paper 1B

Foundation Tier

Wednesday 6 June 2007 - Afternoon

Time: 30 minutes

Materials required for examination
Nil

Items included with question papers
Nil

Instructions to Candidates

In the boxes above, write your centre number, candidate number, your surname, initial(s) and signature, and complete the paper reference.

Check that you have the correct question paper.

Answer ALL the questions. Write your answers in the spaces provided in this question paper. Show all stages in any calculations and state the units. Calculators may be used.

Include diagrams in your answers where these are helpful.

Some questions must be answered with a cross in a box (\boxtimes) . If you change your mind about an answer, put a line through the box (\boxtimes) and then mark your new answer with a cross (\boxtimes) .

Information for Candidates

The marks for individual questions and the parts of questions are shown in round brackets: e.g. (2). There are 6 questions in this question paper. The total mark for this paper is 30. There are 8 pages in this question paper. Any blank pages are indicated.

Advice to Candidates



This symbol shows where the quality of your written answer will also be assessed.

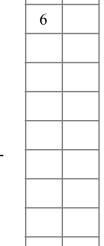
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Examiner's use only

Team Leader's use only

Question Number

1

2

3

4

5



Total

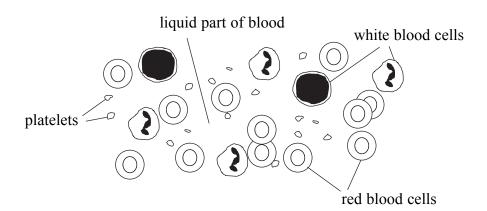


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Mark a cross (☒) next to the correct words to complete the sentence. cure them Doctors can give heroin to terminally ill patients to reduce pain stop infections □	drug		effect on the body	
paracetamol reactions and may cause liver damage can make you unconscious for operations makes the mind and body more active makes the mind and body more active (3) Mark a cross () next to the correct words to complete the sentence. cure them Doctors can give heroin to terminally ill patients to reduce pain stop infections	alcohol		• reduces headache pain	
barbiturate makes the mind and body more active makes the mind and body more active (3) Mark a cross (🗵) next to the correct words to complete the sentence. cure them Doctors can give heroin to terminally ill patients to reduce pain stop infections 🖂	paracetamol		reactions and may	
body more active body more active (3) Mark a cross () next to the correct words to complete the sentence. cure them Doctors can give heroin to terminally ill patients to reduce pain stop infections (1)	caffeine		unconscious for	
Mark a cross (☒) next to the correct words to complete the sentence. cure them Doctors can give heroin to terminally ill patients to reduce pain stop infections ☒ (1)	barbiturate			
cure them ☐ Doctors can give heroin to terminally ill patients to reduce pain stop infections ☐ (1)) Mark a cross (⋈) nev	t to the correct w	words to complete the sentence	(3)
Doctors can give heroin to terminally ill patients to $\mathbf{reduce\ pain}$ $\mathbf{stop\ infections}$ $\mathbf{\square}$ (1)) Wark a cross (Z) nex	t to the correct w		
(1)	Doctors can give here	oin to terminally		
(Total 4 marks)			stop infections	(1)
			(Total 4 mar	ks)

Leave blank

2. The diagram shows human blood.



Choose words from the box to complete the following sentences.

clot	flow	plasma	red
solid	soluble	water	white

- (c) Oxygen is carried in the blood cells. (1)
- (d) If the number of platelets is low, blood may not quickly.

 $(1) \quad |Q2|$

(Total 4 marks)

() = 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
(a) Two haploid cells join together at fertilisation to Name these two haploid cells.	produce a zygote (fertilised egg).
and	
	(1)
(b) Julie gives birth to a girl.	
Mark a cross (☒) next to the correct letters to con	mplete the sentence.
XX 🖾	
The sex chromosomes in a girl are XY	
YY 🗵	(1)
(c) Chromosomes contain DNA.	
(i) Complete the diagram of a DNA molecule by bases in the three empty boxes.	writing in the correct letters for the
A T A T G C	
T A T A C	
	(2)
(ii) After cell division, the first part of the new original.	DNA is not an exact copy of the
A T C T G	
T A G A C	
State how the first part of this DNA has char	nged.
	(1)
(iii) What is a change in the chemical structure o	f DNA called?
	(1)

Leave blank

4.	Wheat plants were grown in different soils with a pH range from 6.5 to 4.5.
	Other conditions were kept the same.
	The table above the eveness beights of the veheat plants often one week

The table shows the average heights of the wheat plants after one week.

рН	6.5	5.5	4.5
Average height of wheat (cm)	11.0	8.4	4.2

(a)	Describe how the acidi	ty of the soil affects	the average height	of the wheat plants.

(b) Name one substance that combines with water vapour in the air to form acid rain.

(1)

(c) The pictures show two plants found in a lawn.

plantain

grass



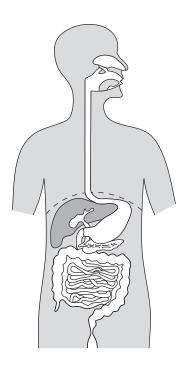


Acid rain affects plantains more than grass.
Using information in the pictures, suggest a reason for this.

......(1) Q4

(2)

(Total 4 marks)



(a) On the diagram, label and name **one** organ where enzymes that digest starch are added to food.

(2)

(b) Carole and Jon add this enzyme to some potato. Ten minutes later they test the mixture and find that there are simple sugars present.

Carole says 'This proves that the enzyme digests starch to produce simple sugars'.

Jon says 'I don't think that it does, there may be another reason for the result'.

Give a reason why Jon's statement is correct.

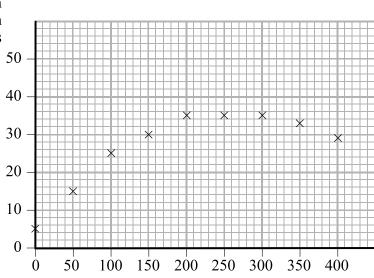
(1)

Leave blank

(c) The concentration of sugar in the small intestine was measured four hours after eating a meal with a high content of starch.

The graph shows how the concentration of sugar in the small intestine changes with distance from the stomach.

concentration of sugar in arbitrary units



distance along small intestine from stomach in cm

(i) Complete the graph by drawing a suitable line.

(1)

(ii) Describe how the concentration of sugar changes from 0 to 300 cm from the stomach.

(2)

(iii) Suggest why the concentration of sugar decreases after 300 cm from the stomach.

(Total 8 marks)

Q5

(2)

			I t
. The	e following is part of an article from a science magazine.		
	When the completed human genome was published in 2003, Dr James Watson said:		
	'The completion of the Human Genome Project is a truly momentous occasion for every human.'		
(a)	What is the human genome?		
		(1)	
(b)	Suggest how the results of the Human Genome Project may benefit humans.		
5			
			Q
	(Total 4 mar)		_
	TOTAL FOR PAPER: 30 MAR	KS	
	END		