

Election 2016

English (C1)

Monday 25th April 0900 – 1030

Leave this question paper behind at the end of the exam

Time allowed: 90 minutes

Answer both Part A and part B. Remembering to start **each part** on a new sheet of paper. You are advised to spend an equal amount of time on each part. Each part is worth 50 marks.

The mark-scheme should help you to organise your time. Credit will be given for intelligent and imaginative answers, even if they are not exactly correct. Try to answer all the questions – a blank space says nothing and earns nothing.

Part A - Read this poem and then answer the questions following it:

Map of India – Moniza Alvi (1993)

If I stare at the country long enough
I can prise it off the paper,
lift it like a flap of skin.

Sometimes it's an advent calendar –
each city has a window
which I leave open
a little wider each time.

India is manageable – smaller than my hand, the Mahandi River thinner than my lifeline.

Contextual note: Alvi, born in Lahore, Pakistan in 1954 of English and Indian parents, came to England as a baby.

Explain the meaning of the following words as used in the poem (write up to a line on each):
'prise' 'advent calendar' 'manageable' 'lifeline' (2 marks each)
Describe in your own words how the poet creates a sense of the narrator's child-like persona.
(10 marks)
Look at three examples of the imagery used by Alvi and consider their effect.
(2 marks per example)
Consider the poet's use of form, structure and poetic devices.
(8 marks)
What do you feel the poet is trying to communicate about her relationship with India in this poem? Is the bibliographical context important? Explore the subject and themes as you see them, using evidence from the poem to back up your ideas.
(18 marks)
Total = 50 marks

Part B - Read this piece of prose and then answer the questions following it:

Excerpt from 'Martin Chuzzlewit' - Charles Dickens (1844)

Context note: This is a description of an American land agent and his office. The 'Edeners' are people selling a plot of land called 'Eden' (actually a pestilent marshland).

It was a small place—something like a turnpike*. But a great deal of land may be got into a dice-box, and why may not a whole territory be bargained for in a shed? It was but a temporary office too; for the Edeners were 'going' to build a superb establishment for the transaction of their business, and had already got so far as to mark out the site. Which is a great way in America. The office-door was wide open, and in the doorway was the agent; no doubt a tremendous fellow to get through his work, for he seemed to have no arrears, but was swinging backwards and forwards in a rocking-chair, with one of his legs planted high up against the door-post, and the other doubled up under him, as if he were hatching his foot.

He was a gaunt man in a huge straw hat, and a coat of green stuff. The weather being hot, he had no cravat, and wore his shirt collar wide open; so that every time he spoke something was seen to twitch and jerk up in his throat, like the little hammers in a harpsichord when the notes are struck. Perhaps it was the Truth feebly endeavouring to leap to his lips. If so, it never reached them.

Two grey eyes lurked deep within this agent's head, but one of them had no sight in it, and stood stock still. With that side of his face he seemed to listen to what the other side was doing. Thus each profile had a distinct expression; and when the movable side was most in action, the rigid one was in its coldest state of watchfulness. It was like turning the man inside out, to pass to that view of his features in his liveliest mood, and see how calculating and intent they were.

Each long black hair upon his head hung down as straight as any plummet line; but rumpled tufts were on the arches of his eyes, as if the crow whose foot was deeply printed in the corners had pecked and torn them in a savage recognition of his kindred nature as a bird of prey.

Such was the man whom they now approached, and whom the General saluted by the name of Scadder.

^{*} turnpike – small office for collecting tolls on a road...

1. Explain the meaning of the following words as used in the passage (write up to a line on each):
a) 'arrears'
b) 'gaunt'
c) 'harpsichord'
d) 'plummet line' (2 marks each)
2. Describe, in your own words, the Edener's office.
(5 marks)
 Look at three examples of the descriptive details used by Dickens and consider their effect.
(3 marks per example)
4. This passage is satirical, which means that it uses humour to point to a more serious message. What do you consider that message to be and what makes you think that?
(10 marks)
 Discuss your impressions of Scadder and your impression of his trustworthiness. Use details from the text to back up your ideas.
(18 marks)
Total = 50 marks

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ELECTION

Mathematics 1

Monday 25 April 2016

Time allowed: 1 hour 30 minutes

Total marks: 100

Calculators are not allowed.

Write your answers in this booklet. If you need additional space, please write on sheets of A4 paper and attach them to this booklet. You may use a pencil for diagrams.

Work carefully, and do not be discouraged if you do not finish.

You should show your working so that credit may be given for partly correct answers.

1,	Evaluate: a) $\sqrt{3^2 + 4^2}$	b) 1+2+4+8+16+32+64	[1] [1]
	c) $2 - \left(\frac{7}{5}\right)^2$	d) √121000000	[1] [1]
	e) $10^3 + 9^3$	f) ³ √0.216	[1]

2.	Evaluate: a) $\frac{777 + 888 + 999}{111}$	b) $\frac{\frac{1}{6} + \frac{1}{7}}{\frac{1}{6} - \frac{1}{7}}$	[1]
	c) $44 \times \sqrt{5 + \frac{1}{16}}$	d) $9\frac{1}{2} \div 1\frac{3}{16}$	[2] [2]
	e) $(2 \times \sqrt{5})^4$	f) 55% of 65% of 6800 143	[2]

3.	a) Evaluate 11111 ² .	b) Find the units digit of $((((2^2)^2)^2)^2)^2$.	[3]
	c) Find the largest whole number n such that $99^{99} \div 3^n$ is a whole number.	d) The triangles ABD and ACD are isosceles. Find the length BC.	[3] [3]

4. a) Evaluate $\sqrt{4} \times \sqrt{9}$ and $\sqrt{4 \times 9}$.

[1]

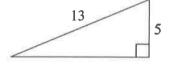
b) Given that a, b and c are positive numbers, simplify $\sqrt{a^2b^2c^2}$.

[1]

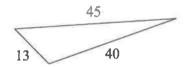
Heron's formula for the area (A) of a triangle with sides a, b and c is $A = \sqrt{s(s-a)(s-b)(s-c)}$, where $s = \frac{a+b+c}{2}$.

c) Show that Heron's formula gives the right result for the area of the triangle below.



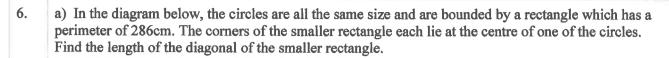


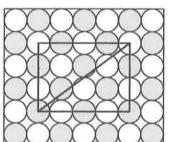
d) Use Heron's formula to find the area of the triangle on the right.



[3]

5.	In this question, the number of divisors of a whole number n is denoted by $\tau(n)$. So, for example, $\tau(12) = 6$ because 12 has six divisors (1, 2, 3, 4, 6 and 12).	
	a) Find $\tau(28)$.	[1]
	b) Find $\tau(29)$ and $\tau(49)$.	[1]
	c) What can you say about a number p if $\tau(p) = 2$?	[1]
	d) What can you say about a number s if $\tau(s)$ is odd?	[1]
	e) Find τ(128). (Hint: 128 is a power of 2.)	[2]
	f) Find $\tau(17^2 \times 23^4)$. (Hint: one divisor of $17^2 \times 23^4$ is $17^1 \times 23^3$.)	[3]

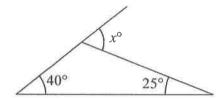




b)
$$x^3 + y^3 = (x + y)(x^2 - xy + y^2)$$
. Use this to write $\frac{1027}{1343}$ as a fraction in its simplest form. (Hint: $7^3 = 343$.)

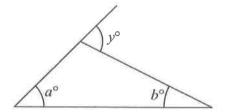
[5]

[5]



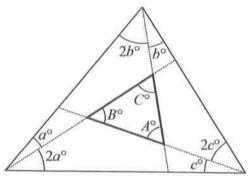
b) Find y in terms of a and b.





c) Find expressions for A, B and C in terms of a, b and c.

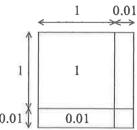




d) Write down the value of a+b+c.

8.	A number is divisible by nine if the sum of its digits is divisible by nine, and vice versa.	
	3456 is divisible by nine: $3+4+5+6=18=9\times 2$.	
	A number is divisible by eleven if the alternating sum of its digits is divisible by eleven, and vice versa.	
	8192635 is divisible by eleven: $8-1+9-2+6-3+5=22=11\times 2$.	
	950 4 is also divisible by eleven: $9-5+0-4=0=11\times 0$.	
	a) Is 45268 divisible by nine? (Briefly explain your answer.)	[1]
	b) The five-digit number 2d519 is divisible by eleven. Find the digit d.	[2]
	c) $1a95b4 = 99n$, where n is a whole number. Find the digits a and b.	[5]
	d) Find <i>n</i> .	[2]

a) Evaluate 1.01². You might find the diagram on the right useful.



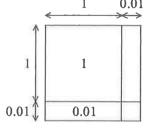
[1]

[3]

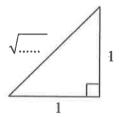
[4]

[2]

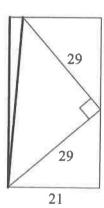
b) Complete the working below, and below right.



 $1.01 = \sqrt{...}$ $7.07 = \sqrt{49}$ $\sqrt{50} \approx 7.07$ √200 ≈ $\sqrt{2} \approx \dots$



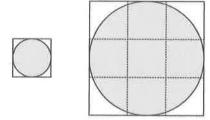
c) The diagram on the right shows a rectangle which bounds a right-angled isosceles triangle. Find the height of the rectangle.



d) Use the fact that the two bold lines have nearly the same length to write down a fraction that is approximately equal to $\sqrt{2}$.



In the diagram below the length of the side of the big square is three times the length of the side of the small square. Each circle touches all four sides of the square that contains it.



a) What is the ratio of the circumferences of the two circles?

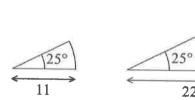
[1]

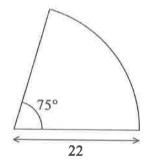
b) What is the ratio of the areas of the two circles?

[1]

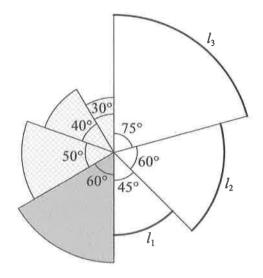
c) Find the ratio of the areas of the three sectors in the diagram below.







The diagram below shows seven sectors of concentric circles. The radius of each sector is proportional to its angle. So, for example, if the radius of the smallest sector were 3cm, the radius of the largest sector would be 7.5cm.



d) The three bold arcs have lengths $l_{\rm l}$, $l_{\rm 2}$ and $l_{\rm 3}$. Find the ratio $l_{\rm l}+l_{\rm 2}:l_{\rm 3}$ in its simplest terms.

e) Find, in its simplest terms, the ratio

light shaded area: dark shaded area.

[4]

[4]



Election 2016

Geography (A5)

Monday 25th April 1400 – 1530

Leave this question paper behind at the end of the exam

Time allowed: 90 minutes

This paper consists of eight questions in two sections:

- Section A (essays)
- Section B (data response).

Answer **THREE** questions, *at least one from each section*. You should aim to spend no more than 30 minutes on each answer. Marks will be awarded for relevant sketch maps and diagrams illustrating your answers. All questions carry equal marks.

SECTION A

QUESTIONS 1-5

Answer at least one question from this section, but no more than two.

- 1. Consider the significance of different physical processes on the evolution of the British landscape
- 2. Does gentrification represent the death or re-birth of urban areas?
- 3. 'Tourism is an inherently negative phenomenon.' Discuss.
- 4. The Antarctic treaty may lapse in 2048 enabling mineral exploration and military activity on the continent. Does this matter?
- 5. With high-resolution satellite imagery enabling detailed surveys of the Earth, what is there left to map?

Each question is worth 20 marks

SECTION B

Answer at least one question from this section, but no more than two.

QUESTION 6

Study figure 1 on the resource sheet before answering.

a) Describe the variation in Late Holocene sea-level change across Great Britain.

(4)

b) Why is this sea level change occurring?

(4)

c) What evidence might this map be based on?

(4)

d) EITHER:
Consider the factors involved in sea level change at one particular location

OR
How can sea-level change be mitigated?

(8)

QUESTION 7

Study figures 2 and 3 on the resource sheet before answering.

a)	Describe the relationship between population density and landslide density shown in figure 3b	
		(2)
b)	What is the significance of this relationship?	
		(4)
c)	Describe the spatial distribution of landslides	
		(2)
d)	How might slope and rainfall affect landslide prevalence?	
		(4)
e)	EITHER: How might humans affect landslide prevalence?	
	OR 'All socio-economic groups are equally at risk due to landslide hazards'. Discuss	
		(8)

QUESTION 8

Study figures 4 and 5 on the resource sheet before answering.

- a) Describe the distribution of people suffering from multidimensional poverty
 (2)
- b) Describe the distribution of people living on <\$2 per day (2)
- c) Why might the MPI be more useful than an indicator based on income alone? (4)
- d) Why might the MPI be less useful than an indicator based on income alone? (4)
- e) EITHER:

What is the significance of metrics such as the MPI?

OR

USAID (The United States Agency for International Development) allows forprofit and not-for-profit companies to bid for aid contracts. Should private companies be able to profit from aid?

(8)

- a) Define the term "natural disaster".
- b) Explain why natural disasters appear to have become so much more common since 1900.
- c) What kinds of disaster appear to be the most deadly and destructive? Do your own studies support this?
- d) "Natural disasters are getting commoner, but they kill fewer people than they once did, and we are better able to cope with their impacts." Do you agree?

END OF PAPER

ELECTION GEOGRAPHY 2016

RESOURCE SHEETS

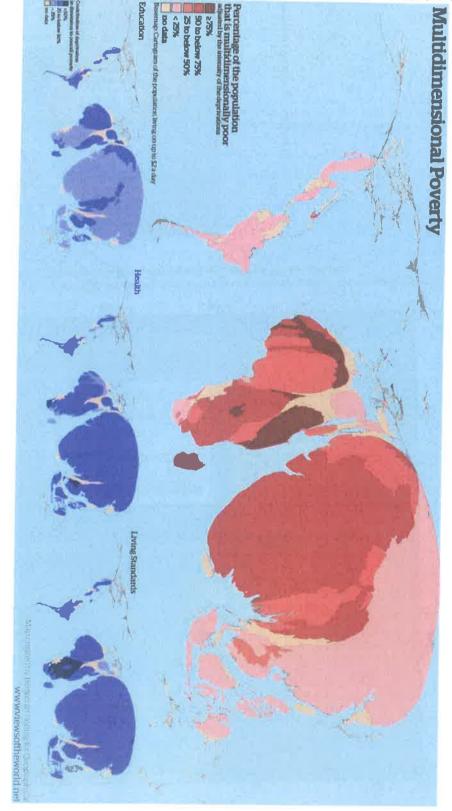


Figure 4: Variations in MPI (multidimensional poverty). MPI is derived from data on health, education and living standards. Someone is deemed as suffering multidimensional poverty if at least 33% of the indicators reflect acute deprivation.

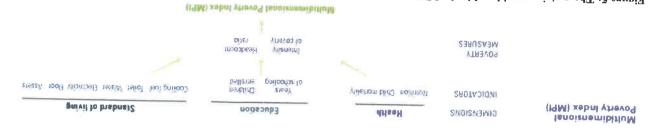


Figure 5: The metrics considered in the MPI

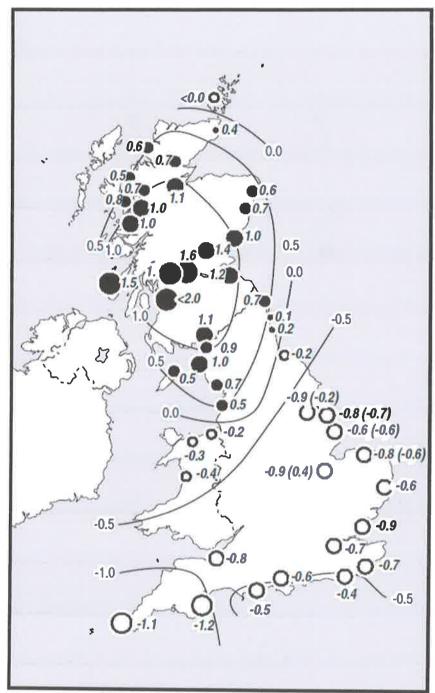


Figure 1 Late Holocene (last 4000 years) relative land/sea-level change (mm yr⁻¹) across Great Britain (reproduced from Shennan et al. (2002))

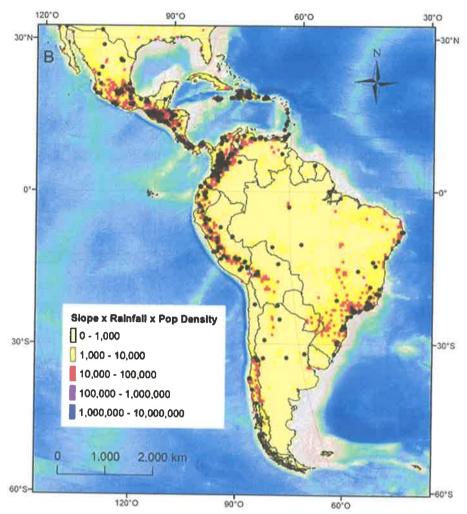


Figure 2: Combined map showing the product of slope, mean annual rainfall and population density. Black dots indicate fatal landslide distribution. Reproduced from Sepulveda and Petley (2015).

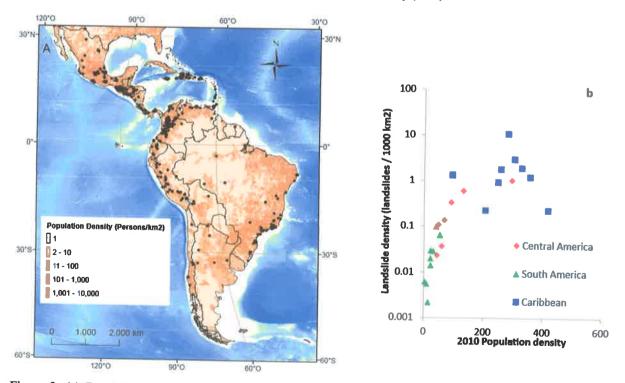


Figure 3: (a) Population density map and fatal landslide distribution (black dots). (b) Landslide density versus population density per country. Reproduced from Sepulveda and Petley (2015).

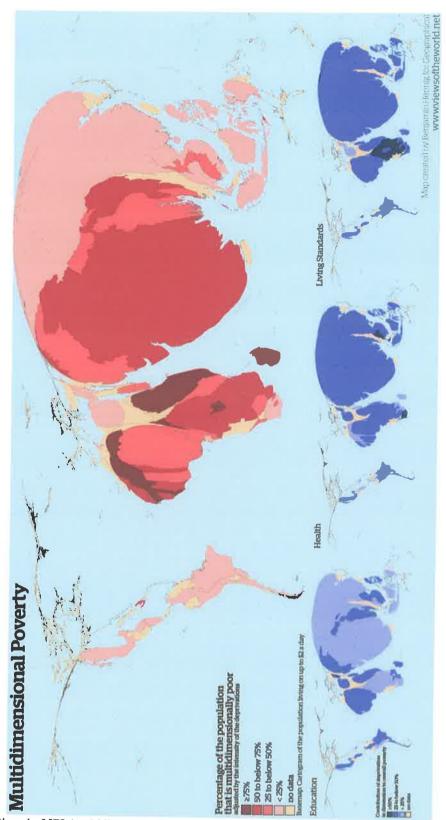


Figure 4: Variations in MPI (multidimensional poverty). MPI is derived from data on health, education and living standards. Someone is deemed as suffering multidimensional poverty if at least 33% of the indicators reflect acute deprivation.



Figure 5: The metrics considered in the MPI



WINCHESTER

COLLEGE

Election 2016

General Paper II (A7)

Monday 25th April 1605 – 1735

Leave this question paper behind at the end of the exam

Time allowed: 90 minutes

Candidates should attempt all three questions. The marks available for each question are indicated on the paper.

Begin each question on a new sheet of paper.

1.	The Director of Studies produced the following data showing the number of Wykehamists
	admitted to American universities over the last decade:

- 2005: 4
- 2006: 9
- 2007: 1
- 2008: 4
- 2009: 5
- 2010: 10
- 2011: 13
- 2012: 12
- 2013: 11
- 2014: 16
- (a) Represent these data graphically.
- (b) Suggest a figure for the number of Wykehamists which will be admitted to American universities in the year 2020. What assumptions have you made in proposing this figure?
- (c) Account for the trend seen in these data.

[15]

2. Explain why the following are humorous:

- (a) Groucho Marx: "From the moment I picked your book up until the moment I put it down, I was convulsed with laughter. Some day I intend to read it."
- (b) Two men talking in a bar:
 - Man 1: "Last summer, I took my wife to the Caribbean."
 - Man 2: "Jamaica?"
 - Man 1: "No, she's always wanted to go."
- (c) Q: "Why did the chicken cross the road?"
 - A: "To get to the other side."

[12]

- 3. Our Queen, Her Majesty Queen Elizabeth II, is:
 - Head of State of the United Kingdom and 15 other commonwealth realms
 - Supreme Governor of the Church of England, and Defender of the Faith
 - Commander in Chief of the Armed Forces

She acquired these responsibilities as nominal head of the government, church and the military by right of her birth.

Discuss the advantages and disadvantages of such an arrangement.

[18]



WINCHESTER

Election 2016

French Listening

Tuesday 26th April

Leave this question paper behind at the end of the exam

Time allowed: 25 minutes

- There are three sections in this paper.
- You will hear each recording three times.
- There will be pauses of **10** seconds between each reading of the text for each question
- You may write at any time during the test.
- Dictionaries are NOT allowed.

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Name	444004000000000000000000000000000000000

SECTION A

À la pizzéria. Answer in ENGLISH. (10)

1 Which numbers does the customer choose at first? (answer in figures, there are
four of them)
(2)
2 Which topping(s) does the customer not like?
(1)
3 What is the problem with pizza number 13?
(1)
4 What kind of fish is on pizza 16?
(1)
5 What is the customer's safest choice?
(1)
6 What is his phone number?
(1)
7 How much does it all cost?
(1)
How many pizzas in total does the customer order?
(1)
How does he feel after the telephone call?

 (1)

SECTION B

La famille. (10)

Remplissez la grille en FRANÇAIS. Read the statements below and then listen to the text. Which statements correspond with which family members? Write the statements into the correct box. There may be more than one statement in each box.

- Elle a souvent le droit de sortir
- C'est quelquefois un peu difficile
- est un peu trop protégé
- je m'entends assez bien avec les deux

- On a de meilleurs rapports
- Nous avons les mêmes amis
- On a beaucoup en commun
- je m'entends bien avec eux
- ils ne sont pas trop sévères
- un peu énervant

		1
Camille		
sœur	•	
	•	
frère	•	
	•	
parents	•	
	•	
Victor		
les deux sœurs	•	
l'aînée	•	

la cadette	•	
	•	

SECTION C

Des dauphins sauvent la vie d'un homme.

Remplissez les blancs en <u>FRANÇAIS</u>. (10)

Un passait ses vacances en Egypte et faisait un tour en
sur la mer Rouge avec ses amis. La mer était si belle
qu'il a dans l'eau. Il nageait quand soudain un requin
l'a et lui a mordu l' et le
, ce qui a fait partir l'animal. Malheureusement, il est revenu
et l'a attaqué une deuxième fois, cette fois-ci au Ce sont
trois dauphins qui ont réussi à
mettant autour de lui et qui ont fait fuir le requin. Grâce à eux, le jeune Anglais a été
sauvé, malgré de très blessures.



WINCHESTER

Election 2016

French Reading (A2)

Tuesday 26th April

Leave this question paper behind at the end of the exam

Time allowed: 20 minutes

Write all your answers in the booklet.

Dictionaries are not permitted.

Name	***************************************
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Read the text below and answer the questions that follow.



L'environnement est un sujet au cœur des débats de nos jours. En effet, il y a de plus en plus de raisons de croire que les activités humaines sont dangereuses pour la planète et pourraient causer de sérieux problèmes pour le monde de demain. Beaucoup parlent du réchauffement climatique par exemple, mais aussi de la disparition de certaines espèces animales et de poissons à cause de la pollution des océans. Ceci pousse les scientifiques à faire des recherches pour trouver de nouvelles méthodes pour aider les hommes à continuer de profiter de leur vie luxueuse sans détruire le monde dans lequel ils vivent mais en le protégeant.

À petite échelle, parmi les activités humaines qui sont néfastes pour la planète, nous pouvons mentionner les transports et toute la pollution qui en résulte. Afin de réduire la pollution, il est conseillé d'utiliser les transports en commun au lieu de la voiture, comme le bus et le train par exemple. Mais une des plus grandes avancées technologiques est la voiture électrique. C'est un moyen très efficace de réduire la pollution tout en gardant les avantages du transport personnel. Bien sûr, il est toujours mieux de marcher ou d'utiliser son vélo, et c'est bon pour la santé en plus d'être bon pour l'environnement.

Une autre façon de réduire la pollution est de recycler. Ceci peut être fait par tout le monde, dans presque tous les pays du monde. Le recyclage permet de réduire la pollution des mers et des océans, et réduit aussi la production de marchandises puisque de vieux produits peuvent être utilisés pour en créer de nouveaux. D'autres petits gestes de la vie de tous les jours peuvent aussi faire une différence. ***Il faut essayer de ne pas utiliser trop d'eau ni d'électricité pendant la journée; par exemple, ne restez pas trop longtemps sous la douche et éteignez la lumière à chaque fois que vous sortez d'une pièce! *** La planète vous remerciera...

Section A (14 marks)

	Answer the following	questions in English,	based on what y	ou read in the text.
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1.	What is said about human activities at the beginning of the article? (1)
2.	Name two consequences of those activities which are given as examples in the text. (2)
	•
3.	What are scientists trying to do for people and for the planet? (2) •
4.	What transport-related advice is given to help reduce pollution? (1)
5.	Name two advantages of cycling and walking. (2)
	•
6.	What can be done by everyone in almost all countries in the world? (1)
7.	Name two ways in which this can help the environment. (2)
	•

8.	W	/hat	can you do at home t	to make a difference? Give two examples. (2)
_				
9.	M	/hat	will the planet do in	return? (1)
Se	ctio	on B	3 (4 marks)	
Tic	ck t	he c	correct answer (the wo	ords are underlined in the text).
	1		En effet means:	
		a)	Indeed	
		b)	However	
		c)	Moreover	
	2		À cause de means:	
		a)	In case	
		b)	Because of	
		c)	In spite of	
	3		<u>Afin de</u> means:	
		a)	Because of	
		b)	At the end of	
		c)	In order to	
	4		<u>Bien sûr</u> means:	
		a)	Well done	
		b)	Of course	
		c)	However	

Section C (7 marks)

Translate the following sentences (marked *** in the text) into English:
" Il faut essayer de ne pas utiliser trop d'eau ni d'électricité pendant la journée ; par exemple, ne restez pas trop longtemps sous la douche et éteignez la lumière à chaque fois
que vous sortez d'une pièce !"
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WINCHESTER

COLLEGE

Election 2016

French Writing (A2)

Tuesday 26th April

Leave this question paper behind at the end of the exam

Time allowed: 45 minutes

Write all your answers in the booklet.

Dictionaries are not permitted.

Name	***************************************
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PART I: VERBS (40 marks)

(A) Present Tense

Fill in the numbered blanks below the passages which follow with the correct form of the present tense of the verbs in brackets.

Example Paul (1 dîner) chez nous ce soir.

- 1 dîne
- a) Le matin, je (1 se lever) à sept heures et demie et je (2 prendre) mon petit déjeuner avec ma famille. Quand je me suis douché et habillé, je (3 quitter) la maison en bus avec ma sœur et nous (4 arriver) à l'école à huit heures et demie. Les cours (5 commencer) à neuf heures moins le quart.
- b) Après l'école, on (6 faire) beaucoup d'activités. Par exemple, je (7 aller) à la piscine tous les mercredis et ma sœur (8 apprendre) à jouer du trombone le vendredi. Ce que je (9 préférer), c'est le judo parce je (10 penser) que c'est un sport intéressant et compétitif. De temps en temps, mon club (11 participer) à des tournois et nous (12 gagner) souvent.
- c) Ma sœur (13 être) très paresseuse le week-end : elle ne (14 vouloir) rien faire, elle (15 dormir) jusqu'à midi et mes parents ne (16 dire) rien, elle (17 avoir) de la chance ! Moi, je (18 devoir) faire mes devoirs, je (19 ranger) ma chambre et je ne (20 pouvoir) pas me reposer !

1		11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

(B) Perfect and Imperfect Tenses

Fill in the numbered blanks below the passage that follows with the correct form of the verbs indicated in brackets, choosing either the perfect tense (passé composé) or the imperfect tense (imparfait) as appropriate.

Quand Marie (1 être) petite, elle (2 vouloir) devenir actrice de cinéma parce qu'elle (3 rêver) d'être célèbre. A dix ans, elle (4 commencer) à prendre des cours de théâtre. Le premier jour, elle y (5 aller) avec une amie pour se donner confiance.

Marie (6 devoir) travailler très dur et elle (7 regarder) beaucoup de films connus pour trouver de l'inspiration. A l'âge de 19 ans, elle (8 passer) une audition et elle (9 finir) première! Hier soir, je (10 voir) son film à la télévision : il (11 être) génial et il y (12 avoir) beaucoup d'action.

PART II: Translation into French (15 marks)

Translate the following passage into French. There are two marks for each phrase
separated by slashes. The total will be divided by two.
In order to stay in shape/, I must eat /vegetables and fruit/ every day.
I play football often/ and I have to sleep/ at least eight hours a night/:
it is good for your health/.
Unfortunately,/ last week,/ I broke my leg/ while playing football/
and now/ I have to stay in bed/ and I cannot go to school!

Part III: Essay (45 marks)

Tu vas écrire une rédaction pour parler de l'école.

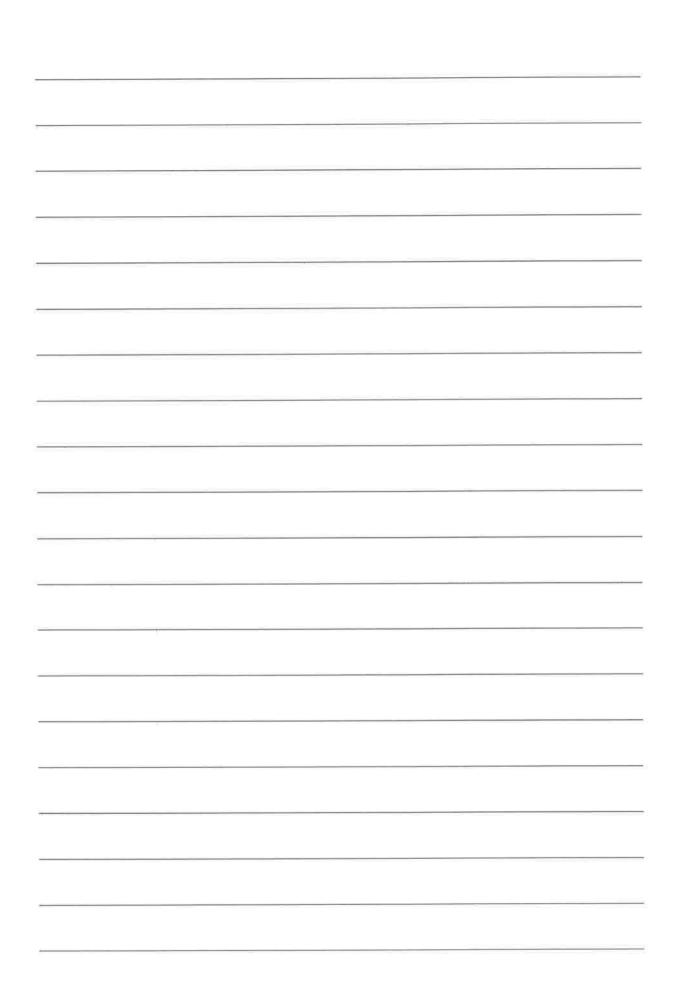
Tu devras mentionner:

- Ce que tu as fait à l'école hier
- Ce que tu aimes et ce que tu n'aimes pas à ton école
- Ce que tu voudrais étudier à l'avenir et pourquoi

Write between 120 and 150 words in French, covering all the four points above, and remember to use structures like:

avant d	le	après	avoir/êt	re	parce q	ue	pendant	que	qui		
que	quar	nd	pour	nour	ı + adjec	tive	adverb	s	pronoui	ns	
pour+	infinit	ive									

		-									
											-





Election

Tuesday 26 April 2016

Science

BIOLOGY

THEORY SECTION

Recommended time: 20 minutes

Write all your answers in the spaces on this question paper

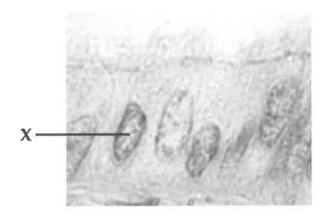


Figure 1 A light micrograph of ciliated epithelium (T.S. rabbit oviduct), magnification 1000x.¹

Structure X:

(a) **Figure 1** shows ciliated epithelium from a rabbit's oviduct seen using a light microscope. Name the structure labelled X and state its functions in these cells.

		[3]
(b)	Most multicellular organisms begin life as a single cell that	
	multiplies as the organism develops. This progenitor cell, from	
	which all the other cells of an organism originate, passes on the	
	same set of genetic information to all of its descendants.	
	Hypothesise how cells with the same genome can look very	
	different and perform very different functions.	

		[2]

2	(a)	Photosynthesis is a process that fixes inorganic carbon from the
		atmosphere into an organic molecule. Write a balanced symbol
		equation for photosynthesis.
		[1]
	(b)	Chlorophyll is important in the harvesting of photons at the
		beginning of photosynthesis. Name the metal ion in chlorophyll.
		[1]
() E		ribosome inner membrane outer membrane circle of DNA
		A 1 μm
		Figure 2 Diagrams showing the structure of A) a chloroplast and B) a mitochondrion. ²
	(c)	Figure 2 A) shows a chloroplast found in a palisade mesophyll
		cell. Explain why the internal membranes of a chloroplast are
		stacked into many layers.

[2]

(d)	The mitochondrion shown in Figure 2 B) is a similar size to the	
	chloroplast in Figure 2 A). State one similarity between these two	
	organelles other than size.	
		[1]
		[+]
(e)	Explain the global importance of photosynthesis.	
		[2]
		[-]



Figure 3 A plains zebra (Equus quagga).3

Figure 3 shows the conspicuous pattern of stripes possessed by the plains zebra. A definitive explanation as to why zebras are striped has eluded scientists, resulting in several possible explanations.

a)	Use your understanding of evolution to suggest how the zebra's
	distinctive pattern could have arisen by natural selection.

[3]

The lion (*Panthera leo*) is a known predator of both the plains zebra and blue wildebeest (*Connochaetes taurinus*). To understand the impact of lion predation on both species scientists in South Africa's Kruger National Park studied the encounters between lions and their prey. Their observations, made over a four year period, are shown in **Table 3**.

	Number of encounters	Kill	Failure	No attempt
Wildebeest	98	14	46	38
Zebra	140	15	94	31

Table 3 The vulnerability of wildebeest and zebra populations to lion predation.⁴

(b)	Use the data presented in Table 3 to explain if there is a difference	
	in the likelihood of a zebra or wildebeest being killed during a lion	
	encounter.	
		ro:
		[2

4	(a)	An egg and a sperm are examples of specialised animal cells. State	
		one similarity and one difference between these two cell types.	
		***************************************	[2]
	(b)	Explain how an egg and a sperm are adapted for their respective	
		functions.	
		***************************************	[2]
	(a)		[2]
	(c)	Describe the process of fertilisation.	
			501
	7.15		[2]
	(d)	State one way in which fertilisation in flowering plants is similar to	
		fertilisation in animals.	
			[4]
			[1]
	(e)	State one way in which fertilisation in flowering plants differs	
		from fertilisation in animals.	
			[1]

Images

- 1. Ciliated epithelium. Image taken by Dr A Savory, Winchester College.
- 2. Chloroplast and mitochondrion. Image drawn by Dr A Savory, Winchester College.
- 3. Plains zebra. Photo taken by Frederick Stourton (I, 2008-2013).
- 4. The vulnerability of wildebeest and zebra populations to lion predation. MGL Mills & TM Shenk (1992) Journal of Animal Ecology, 61(3); 693-702.

End of this Section



Election

Tuesday 26 April 2016

Science

PHYSICS

THEORY SECTION

Recommended time: 20 minutes

Write all your answers in the spaces on this question paper

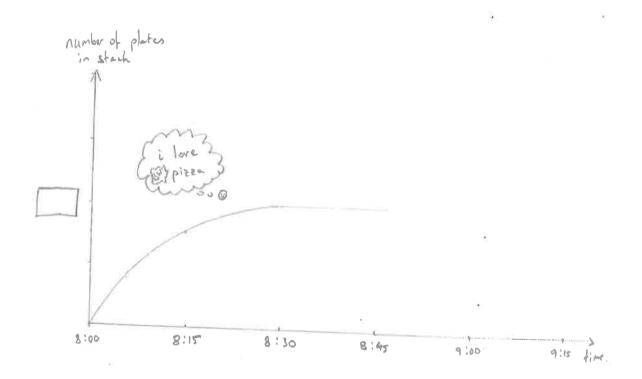
1	Billy	Wykeham has started a café. He feels that the key to success is constant	
	mon	itoring of what is going on in the kitchen. He is particularly interested in	
	the c	lirty dishes stacking up in the scullery and takes careful observations	
	over	the course of a day.	
	Billy	's plates have a weight of 2.0 N, a mass of 200 g and a base area of	
	200 c	m². They can endure a maximum pressure of 5990 Pa from plates	
	stack	sed on top of them before cracking. 1 pascal (Pa) is one newton per	
	squa	re metre.	
	(a)	Calculate how many plates can be stacked on top of each other before	
		the bottom one breaks. Show your working.	
			[2]
	(b)	The plates are placed in a sink full of washing-up water. The sink is	
		rectangular in cross-section, 70 cm long and 40 cm wide. When Billy	
		tips 5 plates into the water so that they are fully immersed, the water	
		level rises by 0.15 cm. Calculate the density of the plates in g/cm ³ .	
			[3]

(c)	Filling the sink to a depth of 30 cm takes 120 seconds if you just use the	
	hot tap, and 60 seconds if you just use the cold tap. Showing your	
	working, calculate how long it takes if you use both taps.	

		[3]
(d)	Bubbles rise from the seething liquid, which Billy enjoys watching.	
	Sometimes a bubble or clump of bubbles rises from the sink and floats	
	upwards. Suggest why this might be.	
		[2]
Dirty	dishes arrive in the scullery at a rate of 2 per minute, starting at	
8.00 a	am, and begin to stack up. His washer-up, M. Plongeur, starts work at	
	am and can wash up 6 dishes per minute.	
(e)	Showing your working, calculate what time it will be when	
	M. Plongeur has cleared the pile of plates.	
		[3]

M. Plongeur takes Tuesday off and Billy employs a part-time replacement, Georgior Weil. Georgior finds he works best under pressure – the higher the stack of dishes, the faster he works. If there are 30 plates waiting, he will wash up 3 per minute; but for every extra 10 plates in the stack, his rate *increases* by 1 per minute. On the other hand, he slacks off if work is light; if there are 10 *fewer* plates in the stack, his rate *decreases* by one per minute. Georgior lives close to the restaurant and always starts work at 8.00 am.





(f) Billy has forgotten to put numbers on the y-axis of the graph – please write the correct number in the box.

(g)	Carefully explain the shape of the graph.	

		[3]
After	Georgior has washed the plates, they go into a rack waiting to be	
dried	l. Terry, who dries the dishes, will dry up 2 per minute for every	
10 pl	ates waiting in the rack.	
(h)	State and explain how many plates you would expect to find in the	
	'washed up, but not yet dried up' rack at 8.40 am.	

	***************************************	[2]
(i)	At 8.45 am the cook spills sauce over a pile of 10 plates and they are	
	suddenly added to the 'dirty' pile. Extend the graph to show how the	
	number of dirty plates changes over the next half an hour.	[2]
	7 1	r-1

Georgior has a twin brother named Eric, who works well when he feels on top of things and does *not* respond well under pressure. When there are 20 plates in the pile, Eric's work rate is the *same* as Georgior's. However Eric's washing-up rate will *drop* by 1 plate per minute for every extra 10 plates in the pile (and *rise* by 1 plate per minute if there are 10 plates fewer).

(j)	Add a dotted line to the graph showing what would have happened	
	had Eric been on duty during the 8.45 am incident.	[2]
(k)	Of course, Eric would never have got into this situation in the first	
` /	place – explain why.	

		[2]

End of this Section



Election

Tuesday 26 April 2016

SCIENCE

PRACTICAL SECTION

Time allowed: 45 minutes

Write all your answers in the spaces on this question paper

You may use a calculator

Safety precautions: Wear safety glasses

Apparatus:

3 test tubes

6 boiling tubes

2 test tube/boiling tube racks

Dropper

Glass rod

Delivery tube

10 cm³ measuring cylinder

50 cm³ measuring cylinder

100 cm³ beaker

Paper towels

White tile

Ruler

Materials:

Solution A: An unknown solution in water

Sodium carbonate solution in water

Limewater

Calcium chloride solution in water

Dilute hydrochloric acid

Phenolphthalein indicator

Red litmus paper

Deionized water in a water bottle

You will use sodium carbonate solution in water as part of a series of experiments on an unknown solution, labelled **A**.

Q1	Before investigating solution A, it is useful to see what sodium carbonate	
	solution can do.	
(a)	Use the dropper to place a small drop of sodium carbonate solution onto a	
	piece of red litmus paper. Note your observations.	
		[1]
(b)	To a test tube, add a few drops of sodium carbonate solution and then a	
	few drops of the calcium chloride solution. Note your results and explain	
	what you see.	

		[3]
(-)	Tales a manufact to the send add a form decrease of a disconstruction to	
(c)	Take a new test tube and add a few drops of sodium carbonate solution to	
	it. Now add a drop of phenolphthalein and describe the colour change.	
		[1]

(d)	Take another test tube and add sodium carbonate solution to a depth of	
	about 2cm. Now add a few drops of hydrochloric acid, watch carefully	
	and note your observations.	
		[3]
00	N 1	
Q2	You have test tube/boiling tube racks and 6 boiling tubes. Using the 10 cm ³	
	measuring cylinder, add 3 cm ³ of solution A to each of 4 boiling tubes.	
(a)	To the first boiling tube containing solution A, add 10 drops of sodium	
	carbonate solution. Watch carefully and note your observations. Gently	
	shake the boiling tube for 5 seconds and note any further observations.	
		[3]

(b) Add a small amount of sodium carbonate to the same boiling tube and shake gently. Repeat this process of adding and shaking, until the solution remains opaque (you cannot see through it). Now carefully measure the height of the liquid in the boiling tube using your ruler.

Record your measurement here: mm

[1]

This is the first result that will go into Table 2.1 below. This result corresponds to a *concentration* of sodium carbonate of 1.00 unit. Enter your result in the correct space in Table 2.1 now.

Boiling tube	Concentration / units	Height / mm
1	1.00	
2	0.67	
3	0.58	
4		

Table 2.1

(c) Use the 50 cm³ measuring cylinder to add 40 cm³ of sodium carbonate solution to the 100 cm³ beaker provided. Now use the same measuring cylinder to add 20 cm³ of deionized water from the plastic bottle to the same beaker, and stir the mixture with a glass rod.

Add this mixture from the beaker to the second boiling tube containing solution **A**, a little at a time, until you have just enough to leave the mixture in the boiling tube opaque after shaking gently.

Record the height of the liquid in the boiling tube in Table 2.1 in the appropriate place.

[1]

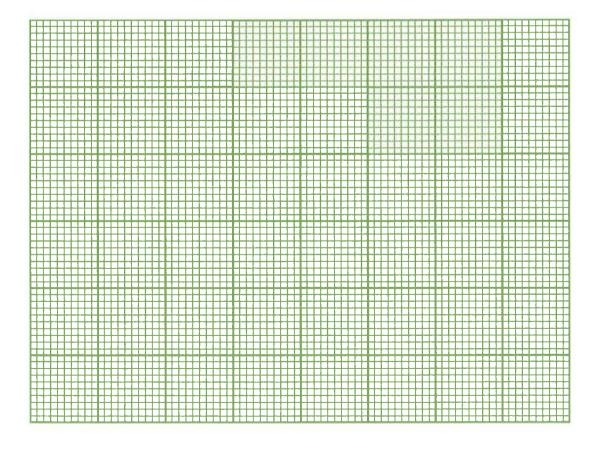
Empty out the beaker ready for the next step.

- (d) For the third boiling tube, repeat the procedure outlined in part (c) above, except that you need 35 cm³ of sodium carbonate solution and 25 cm³ of deionized water. Record your result in Table 2.1 and empty out the [1] beaker.
- (e) For the fourth boiling tube, repeat the procedure outlined in part (c) above, except that you need 30 cm³ of sodium carbonate solution and 30 cm³ of deionized water. Record your result in Table 2.1 and empty out the beaker.

Fill in the appropriate value for the missing concentration in Table 2.1.

Leave all 4 used boiling tubes to stand without disturbing them.

(f) On the graph paper below, plot a graph of height of liquid against concentration of sodium carbonate. Draw a smooth curve or straight line of best fit as appropriate.



(g)	Even if all of the measurements are made and recorded perfectly, there	
	will always be some errors in the results. Suggest at least two sources of	
	such errors.	
		[2]
(h)	Explain as fully as you can why your graph has the shape it does.	

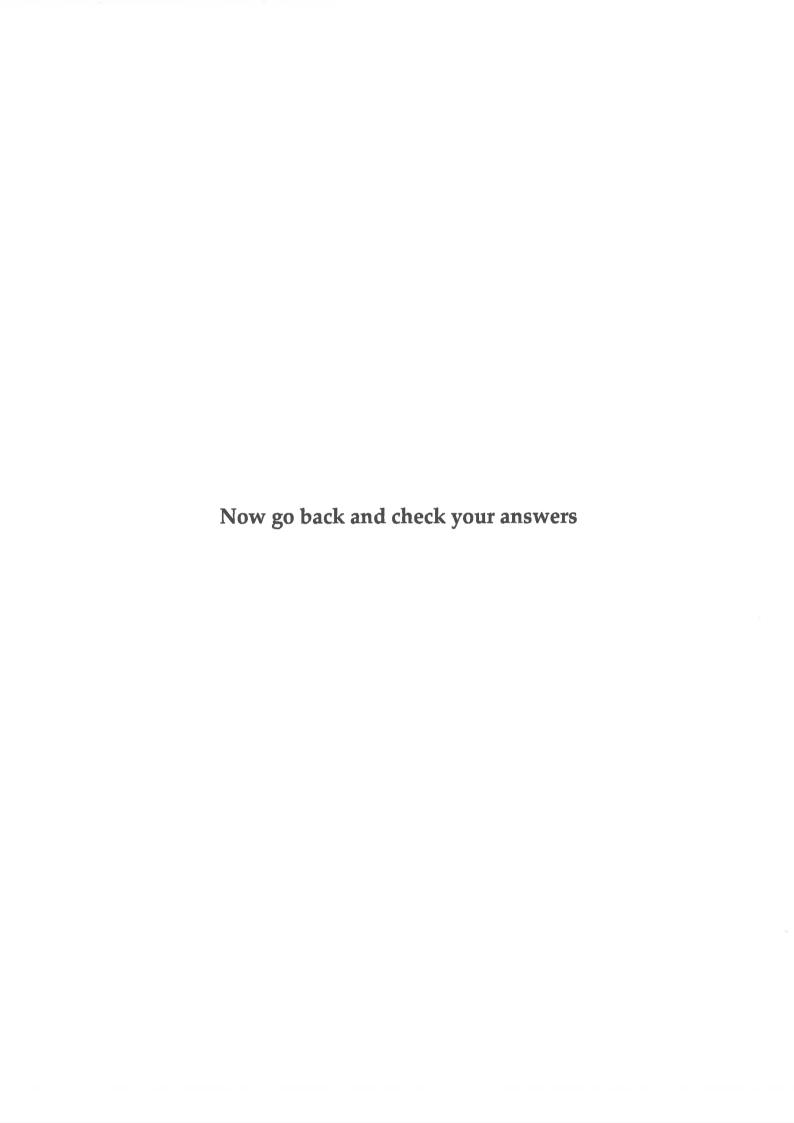
		[3]
(i)	You have two unused boiling tubes. Into one of them, add limewater until	
	the tube is about a quarter full. Into the other, add solution A until it is	
	about a quarter full. You will need to be ready to use the delivery tube and	
	both of these boiling tubes to test a gas that is produced in the next step.	
	Add enough sodium carbonate solution to the tube a quarter full of	
	solution A to half fill the tube, and then test the gas produced using the	
	limewater.	
	Write down your observations and conclusions.	
	Observations	
		[2]

Conclusions	
	[2]

(j) Draw a labelled diagram of the way you arranged your apparatus during the testing of the gas released.

(k)	Look again at the first four boiling tubes. Describe the appearance of their	
	contents now.	
		[3]
(1)	Suggest some further sources of error in this experiment.	
		[2]

End of Practical Paper



Name	
1401116	***************************************



ELECTION

Mathematics 2

Wednesday 27 April 2016

Time allowed: 1 hour 30 minutes

Total marks: 100

Calculators are not allowed.

Write your answers in this booklet. If you need additional space, please write on sheets of A4 paper and attach them to this booklet. You may use a pencil for diagrams.

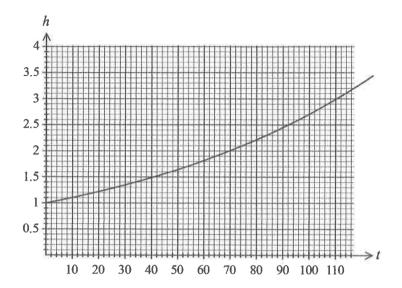
Work carefully, and do not be discouraged if you do not finish.

You should show your working so that credit may be given for partly correct answers.

	Evaluate: a) 10 ³ ×10 ⁶	b) $\frac{162}{18}$	
	c) 6×5×4×3×2×1	d) $\frac{360}{8} - \frac{360}{22.5}$	[1] [1]
	e) $\frac{8}{7} - \frac{7}{8}$	f) $(1.5)^3 \times 2^3$	[1]

2.	Solve: a) $\frac{a^3 + 17}{36} = -3$	b) $\frac{999}{\frac{50}{3+b}-1} = 111$	[2]
	c) $\frac{121 + 242 + 363 + 484}{c} = 55$	d) $\frac{1}{d} = \frac{9}{22} - \frac{8}{33}$	[2] [2]
	e) $2^e = 2^{10} + 2^{10} + 2^{10} + 2^{10}$	f) $2^f \times 3^f \times 5^f = 810000$	[2]

3. The diagram below shows the graph of h=1.01'.



Otto is a very young dog. Every day his height increases by 1%, and it will continue to do so for at least the next four months. Right now he is 25cm tall.

a) After roughly how many days will Otto's height have increased by 50%?

b) After roughly how many days will Otto be 50cm tall?

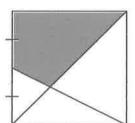
will Otto be 50cm tall? [2]

c) If Otto continues to grow at the same exponential rate, after roughly how long will he be 9m tall (large dinosaur size)?

[5]

[1]

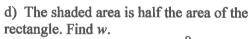
4. a) What fraction of the square below is shaded?

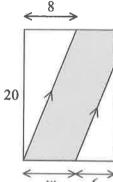


b) Solve $\sqrt{\sqrt{x}} = \sqrt[3]{7\sqrt{7}}$.



c) Find the integer solutions of $\frac{5}{16} \le \frac{10}{y} \le \frac{4}{11}$.





[3] [3]

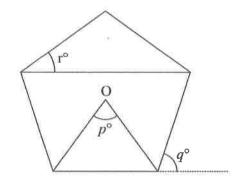
5.	a) The mosaic below is made of white square tiles and grey square tiles. How many tiles are there altogether?	[1]
	b) How many more grey square tiles than white square tiles are there?	[2]
	c) The mosaic is extended by adding a ring of white square tiles, then a ring of grey square tiles, then a ring of white square tiles, and so on, until the outer ring is 100 tiles wide. How many of the square tiles in this large mosaic are white?	[5]

a) A football like the one in the picture is made from twelve pentagonal panels and n hexagonal panels. Every pentagon is joined to a hexagon on each of its five edges. Every hexagon is joined to three pentagons and three hexagons.	
(i) Show that $n = 20$.	
(ii) How many edges does the football have? (The answer is not 180.)	
b) Can you read this sentence in a billionth of a century? (A billion is a thousand million.)	

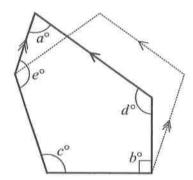
7. a) The diagram below shows a regular pentagon with centre O. Find the values of p, q and r.

[3]

[6]



b) The diagram below shows a pentagon (bold) which has a right angle, and two sides in common with a regular pentagon. Find, in its simplest terms, the ratio a:b:c:d:e.



8. Tom is playing with his toy trains. He has a big, fast one that always goes at the same speed, and a small, slow one that always goes at the same speed. He runs them on two circular tracks which have the same centre. The radius of the outer track is double the radius of the inner track.

When Tom runs the fast train anticlockwise on the outer track and the slow train anticlockwise on the inner track, the fast train overtakes the slow train every thirty-six seconds (left diagram). When Tom runs the fast train anticlockwise on the outer track and the slow train clockwise on the inner track, the trains pass each other every twenty seconds (right diagram).



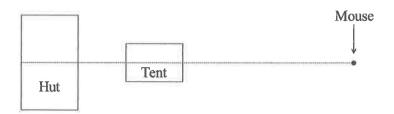


Tom then switches the trains so that the fast train is running anticlockwise on the inner track, and the slow train is running clockwise on the outer track (diagram below). How often do the trains pass each other now? (*Hint*: you might find it helpful to think about how many degrees the trains turn through every second.)

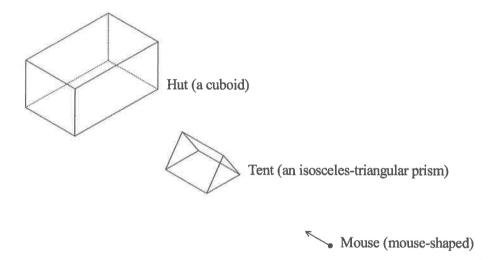
[10]



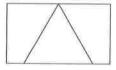
9. A Kestrel hovering high above a large level garden sees a hut, a tent and a mouse. The mouse is creeping toward the front of the tent along the line of symmetry common to the rectangular bases of the hut and the tent.



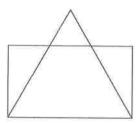
A dove perched in a tree has the view shown below.



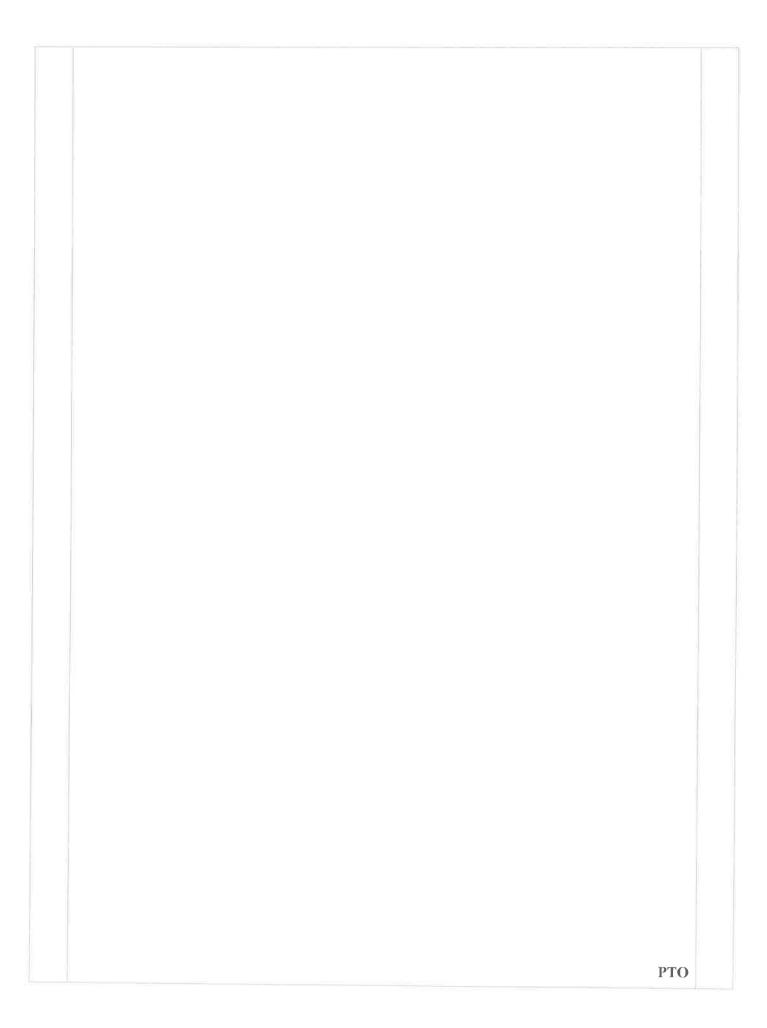
The height of the tent is three-fifths of the height of the hut. At one point, the mouse has the view shown below.



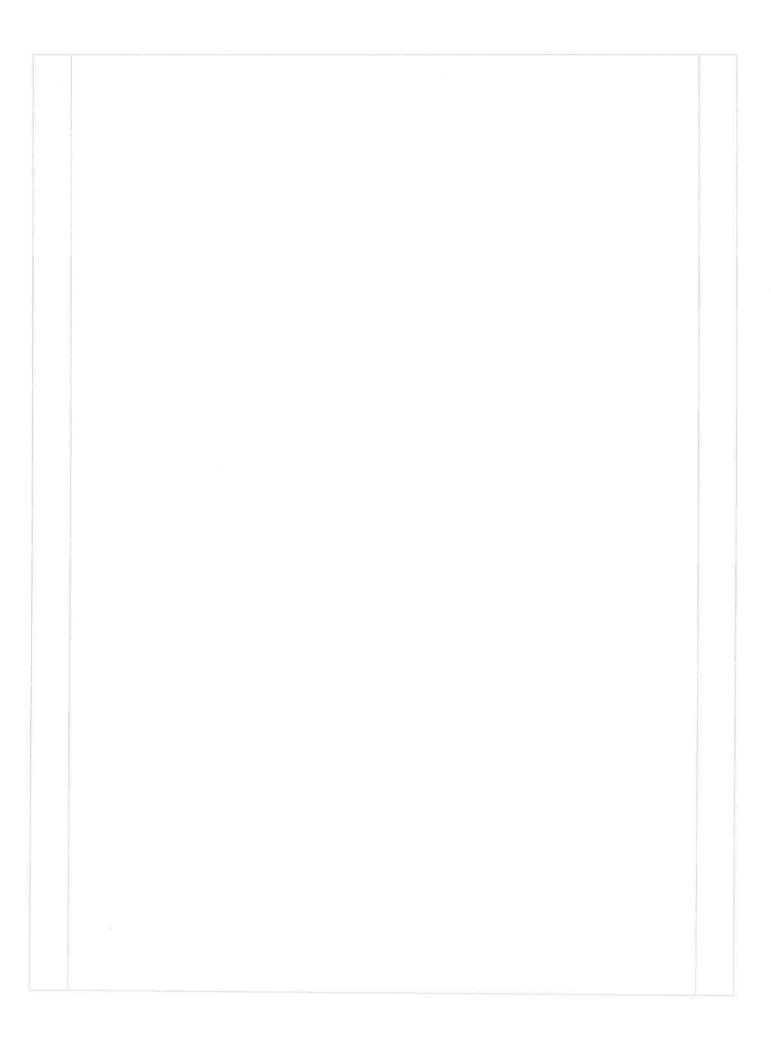
The mouse crawls another 5.5m toward the hut. The tent is two-fifths of the width of the hut. The mouse now has the view shown below.



How far is the mouse from the safety of the tent now?



10.	This question is about permutations of sequences of different letters.		
	Consider the example below:		
	LISTEN (1 3) (6 5 4) = SILENT		
	The letter in first position (L) goes to third position, and the letter in third position (S) goes to first position. The letter in sixth position (N) goes to fifth position, the letter in fifth position (E) goes to fourth position, and the letter in fourth position (T) goes to sixth position. So the letters L and S swap over, and the letters T, E and N rotate around. The letter in second position stays where it is.		
	Here are some more examples:		
	MELON (13) = LEMON	(Swap the first and the third letters.)	
	GRATE $(3 4 5) = GREAT$	(Rotate the third, fourth and fifth letters.)	
	FLOW (1 4) (2 3) = WOLF	(Two swaps.)	
	TOUGH (5 4 3 2 1) = OUGHT	(Rotate all the letters.)	
	a) Complete the following:		
	ALERTING (4 5 3) =	STAPLE (1 6 5 2 4) =	
	SLATE = TALES	(1 (A 2 5 0 2 G)	
	SDATE – TALES	(1 6 4 3 5 8 2 7) = ALERTING	[4]
	a derangement of the letters of the name	n its original position is called a <i>derangement</i> . So (1 2 3)(4 5) is e HARDY, and (2 1 5 3 4) is another, but (1 3)(2 5) is not derangements of the name Hardy are there?	[9]
1 / July 1 and 1 a			[7]





Election 2016

Latin (A1)

Wednesday April 27th 1100 – 1230

Leave this question paper behind at the end of the exam

Time allowed: 90 minutes

No dictionaries permitted

Candidates should attempt both sections of the examination and start **each question** on a new sheet of paper.

SECTION A

On alternate lines translate both the following passages into English.

1.

Caesar has a vision when crossing the Rubicon from Gaul into Italy.

Caesar in Gallia octo annos pugnaverat. tandem, omnibus <u>Gallis</u> victis, volebat Romam redire ut urbem regeret. non enim poterat <u>quemquam</u> <u>potentiorem</u> quam se ferre. milites igitur suos convocatos iussit ad Italiam festinare. deinde, <u>Alpibus</u> celeriter superatis, cum ad flumen parvum Rubiconem nomine media nocte advenissent, <u>imago</u> patriae a Caesare subito visa est. femina vultu tristissimo erat. magna voce duci haec dixit: 'quo is? num vis ipsam Romam oppugnare?' itaque eum monebat ne flumen cum militibus armisque transiret. quibus auditis ille perterritus 'ego sum Caesar,' inquit, 'victor terraque marique. pro te pugnabo. miles tuus semper ero.' tum suis imperavit ut in aquas fluminis descenderent. 'hic pacem <u>iura</u>que relinquo,' inquit; 'nunc Fortunam et bella sequar.' tum ipse flumen transgressus est.

Based on Lucan, De Bello Civili I

Gallus, -i, 2m: a Gaul

quisquam (acc. quemquam): anyone

potens, -ntis: powerful

Alpes, -ium, 3f: the Alps

imago, -inis, 3f: a vision

ius, iuris, 3n: law

[35%]

Take a new sheet of paper

2.

The flute-players of Rome, who played to accompany sacrifices, are deprived of a traditional privilege, and go to Tivoli in protest. The people of Tivoli get them back to Rome with a trick.

tibicines, quod prohibiti erant in templo lovis cenare, irati erant, et Roma profecti Tibur omnes discesserunt. senatores, cum nemo in urbe esset qui sacrificiis praecinere poterat, iram deorum timebant, nuntiosque miserunt ut Tiburtinis persuaderent ut cogerent tibicines Romam redire. responderunt illi se id facere velle. primum accitos eos hortati sunt ut redirent Romam; tibicines tamen nolebant. itaque die festo Tiburtini tibicines in domos suas invitaverunt ut cenae praecinerent, et vino (quod tibicines maxime amabant) eos sopiverunt, deinde in plaustra, somno superatos, iecerunt et Romam portaverunt; nec tibicines quid factum esset intellexerunt antequam plaustris in foro relictis plenos crapulae eos lux oppressit.

Livy (adapted)

tibicen, tibicinis 3m: flute-player prohibeo 2: I prevent Tibur, Tiburis 3n: Tivoli praecino 3 (+ dat): I play at Tiburtini 2m pl: people of Tivoli

accio 4: I summon, call together

festus –a –um: festive, holiday sopio 4: I send to sleep plaustrum, -i 2n: cart, wagon plenus –a –um: full crapula, -ae 1f: hangover opprimo –ere oppressi: I come upon, find

[35%]

Take a new sheet of paper

SECTION B

Attempt either the Comprehension or the Prose Composition

COMPREHENSION

Read this passage carefully, and then, without writing a translation, answer the questions which follow.

At Lentulus' bidding Publius Umbrenus successfully persuades the Allobroges, a Gallic tribe subject to Rome, to join the conspiracy of Catiline.

eodem tempore Romae Lentulus P. Umbreno imperavit ut legatis

Allobrogum persuaderet ut socii in coniuratione fierent. Umbrenus,
qui ipse in Gallia saepe fuerat, promisit se hoc facturum esse. itaque
sine mora legatos rogavit cur Romam missi essent quidque peterent.
postquam illos audivit queri de avaritia Romanorum, et senatores
accusare quod nullum auxilium misissent, 'at ego,' inquit, 'vobis
consilium ostendam quo haec mala effugere possitis.' haec ubi dixit

Allobroges Umbrenum orabant ut se adiuvaret; promittebant se
omnia facturos esse ut civitatem suam liberarent. tum Umbrenus illos
in domum Bruti duxit, coniurationem Catilinae aperuit sociosque
nominavit. deinde, cum auxilium suum promisisset, eos domum
dimisit.

Sallust (adapted)

Allobroges, –um 3mpl: Allobroges coniuratio, -ionis 3f: conspiracy

fio, fieri: I become

queror, -i, questus sum: I complain avaritia, -ae 1f: greed aperio, -ire, aperui, apertum: I reveal

1.	(N.B. Your answers should as far as possible translate the relevant Latin	words)
a)	Where does the action of this incident take place?	[1
b)	What instruction does Lentulus give to Publius Umbrenus?	[4
	What considerations make Umbrenus a good person to undertake this job	_
-	How do the Allobroges reply to Umbrenus' enquiry?	[5
e) f)	What promise do the Allobroges make to Umbrenus?	[3]
,	Where does Umbrenus now take the Allobroges? As well as revealing Catiline's conspiracy, what does he also do?	[2 _]
	What promise does he then make before finally sending them home?	[1
[T	otal marks for question 1: 20]	
2.	In what case is each of the following words?	
	a) eodem (line 1)	
	b) mora (line 4)	
	c) omnia (line 8)	[3]
3.	Translate into good English:	
	itaque sine mora legatos rogavit cur Romam missi essent quidque petere	nt
	(lines 3-4).	[6]
4.	Translate into Latin (most of the vocabulary is in the passage):	
	Lentulus said that he had heard the words of the senators.	[4]
5.	Give the second person singular of the perfect indicative active of:	
	a) persuaderet (line 2)	
	b) misissent (line 6)	[2]
6.	Give the nominative plural neuter of:	
	a) qui (line 3)	
	b) hoc (line 3)	[2]
7.	Give from the passage an example of:	
	a) an indirect statement	
	b) a pluperfect subjunctive	
	c) a purpose clause.	[3]
[Tc	otal marks for questions 2-7: 20]	
Tot	tal marks for comprehension: 40, to be converted to 30.	1% 1

PROSE COMPOSITION

On alternate lines translate the following passage into Latin

Agrippina very much wanted to be the wife of Claudius, for she said that she was already a mother and would give Claudius a son. But Germanicus, her father, had been Claudius' brother, and so the <u>people thought</u> that this <u>incest</u> would <u>bring disaster</u> to the city. Therefore Vitellius, a friend of the emperor, entered the <u>senate-house</u> in order to persuade the <u>senators</u> to <u>approve</u> the <u>marriage</u>. 'No one will be a better wife for our emperor than Agrippina,' he said, 'For she is wise and noble and very beautiful.' Having heard these words, all the senators <u>allowed</u> Claudius to marry her without delay.

I beg: oro 1

I marry: in matrimonium duco 3

them (use reflexive) people: populus, -i 2m

I think: puto 1

incest: incestum, -i 2n

I bring: fero, ferre, tuli, latum

disaster: clades, -is 3f

senate-house: curia, -ae 1f senator: senator, -is 3m

I approve: probo 1

marriage: matrimonium, -i 2n l allow: sino, -ere, sivi, situm

[30%]

END OF PAPER



WINCHESTER

Election 2016

History (A4)

Wednesday 27th April 2016 1400 – 1540

Leave this question paper behind at the end of the examination

You have 10 minutes to study the source documents before the examination starts.

Time allowed: 10 minutes reading time, then 90 minutes to complete the paper.

Answer ALL in Section A and ONE question from Section B.

Total marks for Section A: 30. Total marks for Section B: 30

Candidates are advised to spend no more than half the time on Section A.

Please start Section B on a fresh sheet of paper.

Section A

Sources

The extracts below are concerned with women's lives in the sixteenth and seventeenth centuries.

You are not expected to know the specialized background to the material but will be given marks on the strength of your interpretation. You are advised to pay special attention to the footnotes.

A.

Princess Anne of Denmark was sister to Queen Mary II of England, who was married to King William III. In 1693, Mary had borne no children. Anne was next in line to the throne. Most people believed that the security of the Protestant succession rested on Anne's fertility (the ability to conceive children). In her letters to her friend Sarah Churchill, Anne referred to menstruation (a woman's monthly bleeding – her body sheds the lining of the uterus (womb)) as 'Lady Charlotte'.

25 July 1692?

I have not yet seen Lady Charlotte which I wonder very much at for I used to be very regular and I cannot fancy she has taken her leave for nine months, because since my first three children I have never bred so soon ...

?1 August 1692

I am at this time in very splenetic [bad-tempered] way for Lady Charlotte is not yet come to me and I doubt if I should prove with child, till too soon after my illness to hope to go on with it, and if I am not, tis a very ugly thing to be so irregular ...

[PS] Lady Charlotte is come to me ...

Anne, Princess of Denmark, to Sarah Churchill, 1692

Β.

Margaret Clitheroe was a butcher's wife. In 1586 she was indicted (charged) for treason for secret Catholic worship. Below is an account of the trial written by her confessor, John Mush.

... Judge Clinch stood up, and said: 'Margaret Clitheroe, how say you? [Are you] guilty of this indictment or not?' Then she [being] about to answer, they [the Protestant judges] commanded her to put off her hat, and then she said mildly with a bold and smiling countenance: 'I know no offence whereof I should confess myself guilty.' The judge said: 'Yes, you have harboured and maintained Jesuits and [Catholic] priests, enemies to her

Majesty [Elizabeth I].' The martyr answered: 'I never knew nor have harboured any such persons, or maintained those which are not the Queen's friends.

[She was found guilty and sentenced to death by crushing with a stone.]

Then [Sheriff] Fawcet commanded her to put off her apparel [clothing]: 'For you must die', said he, 'naked as judgement was given and pronounced against you.'

The martyr with the other women requested him on their knees that she might die in her smock [a dress or top for a woman or girl, gathered at the chest and having a loosely fitting lower part], and that for the honour of womanhood they would not see her naked; but that would not be granted. Then she requested that women might unapparel her; and that they would turn their faces from her for that time ...

They [the Protestant judges] also willed her to ask her husband's forgiveness. The martyr said, 'If ever I have offended him, but for my conscience, I ask him forgiveness.'

Source: John Morris (editor), The Troubles of Our Catholic Forefathers (1877)

C.

In 1687, Sarah Savage married a widower and distant cousin. She kept a diary.

Friday 18 March 1687: Co[u]s[in] Savage was here, and I had more than two hours discourse with him yet, to my shame and sorrow I speak it, scarce a word that I remember of any spiritual things. I fear this will be bitter in the reflection, but if God should dispense blessings and comforts as narrowly as I perform duties then were no hope. The Lord will perfect. My heart's desire is that I may have grace to fill the new relations he shall put me in.

Wednesday 23 March 1687: Co[u]s[in] Savage came here and we had two or three friends present and were solemnly contracted, a step towards marriage.

God hear in heaven my dwelling place – we desire solemnly to knock at thy door, heartily have I begged Christ to be present at the wedding.

Friday was then appointed to be the day of the marriage, a surprise to me to have it so soon, but having left the matter with God, and trusted him, I acquiesce [accept something reluctantly but without protest] in his disposition of me. That night [I] begged heartily for the two graces of wisdom and humility.

Monday 28 March 1687: We were solemnly married ... with the consent and approbation [approval or praise] of most of our friends by Mr Green. God give me a new heart for my new condition, and help me to discharge the duties of it, as a wife, a mother and a daughter-in-law.

Tuesday 19 April 1687: I left Broad Oak [her home], the saddest day that ever came over my head, heart ready to burst but God I found to be the strength of my heart and trust he will be my portion for ever.

Source: Diary of Sarah Savage, Chester City Record Office.

D...

Hannah Wolley was born in 1623. She was educated by her female relatives and other women. She was twice married and was employed in a number of occupations. She wrote several advice books for women.

Instructions for nursery maids, dairy maids and under-cook maids.

Everyone must have a beginning, and if you will be ingenious and willing to learn, there is none will be so churlish [rude in a mean-spirited and surly way] or unkind as to be unwilling to teach you; but if you are stubborn and careless, who do you think will trouble themselves with you? Beware of gossips, for they will misadvise you; beware of the solicitations of the flesh, for they will undo you; and though you may have mean thoughts of yourself, and think none will meddle with such as you; it is a mistake, *hungry dogs will eat dirty puddings*.

Hannah Wolley, The Compleat Servant Maid (1677)

E.

Jane Sharp was one of the first women to publish health care advice for women.

... we find that some women are exceedingly fruitful to conceive; and others barren that they conceive not at all.

Some women are by nature barren, though both they themselves and their husbands are no way deficient to perform the acts of generation, and are in all parts, as perfect as the most fruitful persons can be ...

Some say again the cause of barrenness is want of love in man and wife, whose seed never mixeth as it should to procreation of children, their hatred is so great ... The cause of this hatred in married people, is commonly when they are contracted and married by unkind parents for some sinister ends against their wills ...

Jane Sharp, The Midwives Book (1671)

Section A

Questions

1. Read Source B. What appears to have been Margaret Clitheroe's main concern? How did she counter the implicit charge that she was a bad wife?

4 marks

2. Why was the menstruation of women such as Princess Anne of Denmark of such interest to a range of people? Why might it have been a great risk for Anne to send such letters as seen in Source A?

5 marks

3. Does Source A offer us authentic access to Margaret Clitheroe's experience or to her own voice? Think carefully and explain your answer.

7 marks

4. Having read Source C, why do you think Sarah Savage kept a diary? What do you think it offered her?

6 marks

5. Reading Source D, what sort of household do you think most young women worked in in the seventeenth century? Is there any evidence to suggest that there was opportunity for promotion?

4 marks

6. What did Jane Sharp see as one of the major causes of infertility? Did she identify infertility as exclusively the woman's 'fault'?

4 marks

Section B

Answer ONE of the following. Use examples from your own knowledge to support your answer. Wherever possible, anchor your arguments in your knowledge of the past. All questions are worth 30 marks.

- 1. 'The historian should never ignore food and domestic issues.' Discuss.
- 2. 'Historians have much to contribute to the debate on the environment.' Do you agree?
- 3. 'The problem with history is that it is always being re-written.' Why does this happen? Is it a problem?
- 4. Should governments apologize for acts committed by previous governments?
- 5. Which two historical figures have you studied that you most admire? Explain your choices carefully.
- 6. How important is it to study religion in the past?
- 7. What are the uses and drawbacks of photographs as historical sources?
- 8. How has any government used history for political purposes?



WINCHESTER

COLLEGE

Election 2016

Greek (A3)

Wednesday April 27th 1615 – 1745

Leave this question paper behind at the end of the exam

Time allowed: 90 minutes

No dictionaries permitted

Candidates should attempt all sections of the examination.

Please start each section on a fresh sheet of paper.

SECTION A

Translate the sentences in Question 1 into English, and then answer the grammatical questions which follow. All the words about which the questions are asked can be found in the sentences.

1 Translate the following sentences into English:

- a) ή θεὰ σώζει τὰς Ἀθήνας καὶ οἱ Ἀθηναῖοι θεραπεύουσι τὴν θεάν.
- b) οί τοῦ κριτοῦ δοῦλοι ἦγον τὸν κακὸν ποιητὴν ἐκ τῆς ἀγορᾶς.
- c) ή όδὸς ή διὰ τῆς τῶν βαρβάρων χώρας ἦν μακρὰ καὶ χαλεπή, ἀλλὰ ὁ κίνδυνος οὐκ ἐκώλυε τοὺς στρατιώτας.
- d) τὰ τοῦ ἰατροῦ τέκνα πείθει τοὺς νεανίας σοφοῖς καὶ δικαίοις λόγοις.
- e) ἆρα ἐφυλάττετε τὰς οἰκίας τοῖς ὅπλοις, ἆ ἀδελφέ;
- f) ὁ γέρων οἰκίαν καλὴν ἔχει· οὐδεὶς γὰρ πλουσιώτερός ἐστιν αὐτοῦ.
- g) ὁ κῆρυξ ἐκέλευσε τὸν δῆμον ἀκούειν τοὺς τοῦ βασιλέως λόγους.
- h) οἱ ἐν τῆ νήσφ παρεσκεύασαν τρεῖς ναῦς ἵνα φύγοιεν ἀπὸ τῶν ἡμετέρων στρατιώτων.
- έπεὶ ὁ πατὴρ εἶπεν ὅτι ὁ υἱὸς ἐν μεγίστῳ κινδύνῳ ἐστίν, ἡ μήτηρ οὐχ οἵα τ'ἦν δύο ἡμέρας καθεύδειν.
- j) οὕτως ἐκρύψαμεν τὰ χρήματα ἐν τῆ γῆ ὥστε τοὺς φύλακας μὴ εὑρεῖν.

- 2 Give the following grammatical forms:
 - a) the dative singular of κριτοῦ, τέκνα, βασιλέως, πατήρ.
 - b) the third person plural present indicative active of ἦγον, ἦν, παρεσκεύασαν, φύγοιεν.
 - c) the first person singular aorist indicative active of σώζει, πείθει, ἐφυλάττετε.
- 3 Give the following forms:
 - a) the comparative (nom. masc. sing.) and the superlative (nom. masc. sing.) of $\sigma o \phi o i \varsigma$.
 - b) the dative feminine singular of κακόν and ἡμετέρων.
- 4 Give an example from the sentences of:
 - a) a present infinitive
 - b) a comparative adjective
 - c) a preposition taking the genitive
 - d) a purpose clause
 - e) a pronoun
- 5 Give English words wholly or partly derived from:

κριτοῦ, δῆμον, ἐκρύψαμεν, γῆ

Take a new sheet of paper

SECTION B

Translate into Greek

- 1. The judge will write a letter and stop the battle.
- 2. The good slaves were guarding the citizens' horses in the market-place.
- 3. We are brave and just; we will save the lives of the sailors.
- 4. On the second day the king's sons sent three very large ships from the city to the island.
- 5. The general led a few young men out of the camp in order to find water for the others.

[25%]

SECTION C

On alternate lines translate into English

Oedipus learns a terrible secret and flees from his home in Corinth.

ό Πόλυβος βασιλεὺς ἦν τῶν Κορινθίων καὶ καλὸν εἶχε παΐδα ὀνόματι Οἰδίποδα. ξένος δέ τις τύχη παρὼν ἐν τῆ τοῦ Πολύβου οἰκία εἶπεν ὅτι ὁ Οἰδίπους οὐκ ἀληθῶς ἐστιν υἰὸς τοῦ πατρός. ὁ οὖν νεανίας ἔπεμψε κήρυκα πρὸς τὸ χρηστήριον τὸ τοῦ Απόλλωνος, ἵνα εὕρη τίς ἐστιν. ὁ δὲ θεός, σοφώτατος ἄν, εἶπεν ὅτι ὁ Οἰδίπους κακὰ καὶ αἰσχρὰ πράξει διότι γαμεῖ τὴν μήτερα καὶ ἀποκτενεῖ τὸν πατέρα. ὁ οὖν Οἰδίπους ἔλιπε τὴν πόλιν καὶ ἔφυγε μόνος εἰς τὴν Φωκίδα γῆν. καὶ ἐν τῆ ὁδῷ εἶδε γέροντα τινὰ πλουσίον μετὰ πολλῶν φυλάκων. ὁ δὲ γέρων ἔκοψε τὸν Οἰδίποδα τῷ σκήπτρῳ, καὶ ἐκέλευσεν αὐτὸν ἀπελθεῖν. ἀλλ' ὁ Οἰδίπους εἰς τοσοῦτον ἀργίζετο ὥστε εὐθὺς ἀπέκτεινε τόν τε γέροντα καὶ πάντας τοὺς φύλακας.

Πόλυβος, -οῦ 2m: Polybus

Κορινθίοι, -ων: 2m pl: Corinthians

Οἰδίπους, -ποδος 3m: Oedipus

άληθῶς: truly, really

χρηστήριον, -ου 2n: oracle Άπόλλων,-ωνος 3m: Apollo πράσσω (fut. πράξω): I do γαμέω (fut. γαμῶ): I marry Φωκίς (acc. Φωκίδα): Phocis κόπτω (aor. ἔκοψα): I hit σκῆπτρον, -ου 2n: stick ἀργίζετο: [he] got angry

[30%]

END OF PAPER