



H A R R O W S C H O O L

ENTRANCE SCHOLARSHIPS EXAMINATION 2012

Monday, February 27th, 4.30 p.m. to 6.15 p.m.

ENGLISH

ONE HOUR AND FORTY-FIVE MINUTES

GENERAL INSTRUCTIONS

*You should attempt both questions.
You are advised to spend 60 minutes on Question 1 (15 minutes reading and making notes and 45 minutes writing) and 45 minutes on Question 2.*

PLEASE START EACH QUESTION ON A NEW PIECE OF PAPER

SECTION A Comprehension and Commentary: 60 minutes, 50 marks

Read this poem by Carol Ann Duffy several times, then answer the questions which follow:

In Your Mind

The other country, is it anticipated or half-remembered?
Its language is muffled by the rain which falls all afternoon
one autumn in England, and in your mind
you put aside your work and head for the airport
with a credit card and a warm coat you will leave 5
on the plane. The past fades like newsprint in the sun.

You know people there. Their faces are photographs
on the wrong side of your eyes. A beautiful boy
in the bar on the harbour serves you a drink – what? –
Asks you if men could possibly land on the moon. 10
A moon like an orange drawn by a child. No.
Never. You watch it peel itself into the sea.

Sleep. The rasp of carpentry wakes you. On the wall,
a painting lost for thirty years renders the room yours.
Of course. You go to you job, right at the old hotel, left, 15
then left again. You love this job. Apt sounds
mark the passing of the hours. Seagulls. Bells. A flute
practising scales. You swap a coin for a fish on the way home.

Then suddenly you are lost but not lost, dawdling
on the blue bridge, watching six swans vanish 20
under your feet. The certainty of place turns on the lights
all over town, turns up the scent on the air. For a moment
you are there, in the other country, knowing its name.
And then a desk. A newspaper. A window. English rain.

1. How does the poem's title help you to understand what it is all about? (4 marks)
2. What do you think Duffy means by 'the other country'? (4 marks)
3. Why do you think Duffy uses 'you' rather than 'I' throughout the poem? (2 marks)
4. In the first verse why do you think Duffy writes that you 'put aside ...work and head for the airport?' (2 marks)
5. What does the line 'The past fades like newsprint in the sun' make you feel, and why is that so? (4 marks)
6. Read the second verse again. When 'you' arrive in 'the other country' what sort of place does it turn out to be? (5 marks)
7. Comment on the meaning and effect of the lines, 'Asks you if men could possibly land on the moon. / A moon like an orange drawn by a child. No. / Never. You watch it peel itself into the sea.' (4 marks)
8. What do you find interesting about verse three? (Think about the description and the way the lines are set out on the page) (4 marks)
9. Why do you think the poet writes, 'You love your job'? (2 marks)
10. In the fourth verse what do you think the poet means when she writes, 'Then suddenly you are lost but not lost...'? (4 marks)
11. Describe your response to the lines, 'The certainty of place turns on the lights / All over town, turns up the scent on the air.' (4 marks)
12. What is happening in the last line of the poem? What is the effect of dividing it into four short verbless sentences? (5 marks)
13. What did you find interesting, difficult, pleasurable or challenging about this poem? (6 marks)

TOTAL – 50 MARKS

NOW START A NEW PIECE OF PAPER

SECTION B Composition: 45 minutes; 50 marks.

Choose **one** of the following titles or themes for a composition. You may choose to write a piece of description, a story, a discussion or a poem. Spend some time planning before you start to write.

EITHER:

- OR:** *Arriving in a Strange Country*
- OR:** *Day Dream*
- OR:** *The Need to Slow Down*
- OR:** *An Imaginary Journey*
- OR:** *Waking Up*
- OR:** *'So various, so beautiful, so new'*



H A R R O W S C H O O L

ENTRANCE SCHOLARSHIPS EXAMINATION 2012

Tuesday, February 28th, 9.00 a.m. to 10.30 a.m.

MATHEMATICS I

GENERAL INSTRUCTIONS:

You may attempt all the questions if you have time, but greater credit will be given for complete solutions. Show all your working. Calculators may be used.

1. Evaluate the following when $x = \frac{1}{4}$, $y = 21$ and $z = -9$, showing clear and full working and leaving your answers in fractions if appropriate.

a) $x(y - z)$

b) $\frac{y^2 - z^2}{3x}$

c) $\frac{1}{z} + \frac{1}{y}$

2. A group of friends are recorded as having the following masses.

Anushka = 41kg, Bill = 44kg, Caroline = 47kg, Dipen = 54kg, Eddy = 44kg

- Calculate the average mass of the group.
- Frank joins the group. The average mass of the six friends is now 46.5kg. Calculate Franks' mass.
- Three more people are added to the group bringing the total to nine people. The range is 15kg and the mode is 41kg. What are the masses of the three people who joined this group?

3. Solve

a) $6(x + 1) - 2(3x + 7) = x^2 - 24$

b) $\frac{x}{2} + \frac{x}{3} + \frac{x}{8} = 2$

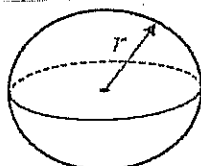
c) $\frac{3x - 1}{4} = \frac{7x + 2}{3}$

4. Gary the gold merchant has three ingots of gold. Each one is shaped like a cuboid with length 23cm, width 7cm and height 4cm.

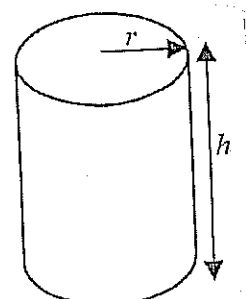
- Gary melts one of the ingots down and pours the gold into mini cuboid moulds each of length 11cm, width 1.5cm and height 0.7cm, how many **complete** mini bars would be made?
- The second ingot is melted down and made into a cylinder of radius 5cm, what would the height of the gold cylinder be?
- The third ingot is melted down and formed into a solid gold sphere (ball). Calculate the radius of this sphere?

The following formula may be useful for this question

Volume of sphere = $\frac{4}{3} \pi r^3$



Volume of cylinder = $\pi r^2 h$



5. Simplify

a) $\frac{3}{p} + \frac{2}{pq}$

b) $\frac{6t^2(r-t) - 2t(7r - 3t^2)}{2r}$

c) $\frac{2p}{3} + \frac{9q}{10} - \frac{p}{6} + \frac{3q}{5}$

6. This question is about exchange rates, where the following information is given;

£1 = \$1.57	British pounds to US dollars
£1 = 1.2 Euros	British pounds to Euros
\$1 = 49 Ru	US dollars to Indian Rupees (Ru)

- How many dollars would be worth £39
- How many dollars would be worth 8000 Ru
- \$1000 is changed into British pounds and then changed into 5790 Danish Kroner (DK). To the nearest penny, work out the exchange rate of one Danish Kroner to British pounds.
- Each time money is changed a charge of 3% of the money being changed is deducted. Calculate how many US dollars I would receive for 280 Euros if I had changed my Euros into pounds and then the pounds into dollars and been charged 3% for each transaction?

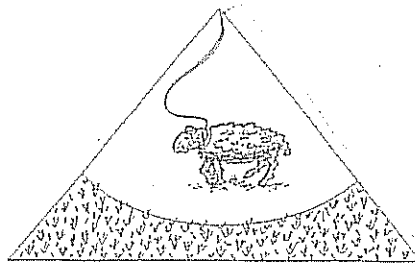
7. Solve the simultaneous equations

a) $3x + 7y = -5$
 $5x - 2y = 19$

b) $3x^2 + 4y^2 = 12$
 $10x^2 + 8y^2 = 28$

8. A sheep is enclosed in a paddock which has the shape of an equilateral triangle. Each side of the paddock has length 18m. A long length of rope is used to tie the sheep, at the neck, to one of the corner posts of the paddock.

- Calculate the area of the paddock.
- The sheep can graze an area that is half the size of the whole paddock. How long is the length of rope?



9. A triangle has sides x , $x + 2$ and $x + 7$. It has the same perimeter as a square with sides $2x - 13$.

- Calculate the value of x .
- A circle has a perimeter that is 20% larger than the perimeter of the square. Calculate the radius of the circle.

THE END



H A R R O W S C H O O L

ENTRANCE SCHOLARSHIPS EXAMINATION 2012

Tuesday, February 28th, 11.00 a.m. to 12.30 p.m.

GEOGRAPHY

*Question one and two are compulsory and must be answered.
Answer one essay title from question three.*

An O.S. map extract is included within this examination.

QUESTION 1

Answer ALL of Question 1
[Spend 25 minutes on this section]

Use the OS map extract of Worksop and the surrounding area and the map key provided to answer the following questions.

- (a) (i) What is the six figure grid reference of the place of worship in Woodsetts? [1]
- (ii) What is located at grid reference 653802? [1]
- (iii) If you were to travel from the roundabout in grid square 5778 to the roundabout in grid square 6178 along the A57, what distance would you have travelled? [2]
- (iv) Estimate the area in square kilometres of the built-up area of the village of Carlton in Lindrick. [2]
- (b) Locate the distribution centre in grid square 6277.
With reference to map evidence, give reasons for the location of this distribution centre. [6]
- (c) What evidence is there that the area on the map might be attractive to tourists? [4]
- (d) With reference to the map, suggest two possible impacts the quarry works in grid square 5478 might have on the surrounding area. [4]

[Total: 20 marks]

END OF QUESTION 1

QUESTION 2

Answer ALL of Question 2
[Spend 30 minutes on this section]

Study the table below.

Table showing Gross National Income (GNI) per person and energy consumption per person for selected countries, 2007

Country	GNI per person (US\$)	Energy consumption per person (kg oil equivalent)
USA	46 970	8640
UK	36 130	4210
France	34 450	4705
Saudi Arabia	22 960	5240
Mexico	14 270	1715
Brazil	10 700	1265
Egypt	5420	860
India	2960	360
Mali	1090	30

- (a) (i) Describe the pattern of energy consumption per person shown in the table. [4]
- (ii) Brazil and India are both BRIC countries (Brazil, Russia, India and China), which are countries expected to increase the most in economic growth and global influence over the next 20 years. Describe and explain the future changes in Brazil or India's energy consumption per person. [6]
- (b) (i) Describe **two** potential consequences for the environment of the USA's high level of energy consumption per person. [4]
- (ii) Describe and explain **two** ways in which a country could reduce its energy consumption per person. [6]

[Total: 20 marks]

END OF QUESTION 2

QUESTION 3

[Spend 35 minutes on this section]

Answer any **one** of the following essay questions and in each case refer to specific examples, places and processes.

Credit will be given for the use of named and located examples and the use of well-labelled sketch maps and diagrams where appropriate.

EITHER

1. Describe and explain the possible advantages and disadvantages of a new high-speed railway line in the UK such as the one proposed between London and Manchester (HS2). [20]

OR

2. Why is fieldwork important in the study of Geography? [20]

OR

3. 'Over the past 50 years, the increase in urban areas has significantly increased the risk posed by the earthquake hazard.' To what extent do you agree with this statement? [20]

OR

4. 'The current rate of global population growth is unsustainable.' Discuss. [20]

OR

5. Evaluate the strategies that can be used to reduce the risk of flooding. [20]

[Total: 20 marks]

[Exam Total: 60 marks]

END OF EXAMINATION



H A R R O W S C H O O L

ENTRANCE SCHOLARSHIPS EXAMINATION 2012

Tuesday, February 28th – 3.45p.m. to 4.45p.m.

FRENCH

GENERAL INSTRUCTIONS:

*You should start a new sheet of paper for each exercise.
Please do all work ON ALTERNATE LINES.*

The marks are shown at the end of each exercise. Use your time accordingly.

1. Translate into English. You should write ON ALTERNATE LINES.

Quand nous sommes arrivés à la gare, il y avait tous les papas et toutes les mamans qui nous attendaient. C'était terrible : tout le monde criait, il y en avait qui pleuraient parce qu'ils n'avaient pas encore retrouvé leurs mamans et leurs papas, d'autres qui riaient parce qu'ils les avaient retrouvés, les chefs d'équipe qui nous accompagnaient sifflaient pour que nous restions en rang, les employés de la gare sifflaient pour que les chefs d'équipe ne sifflent plus, ils avaient peur qu'ils fassent partir les trains, et puis j'ai vu mon papa et ma maman, et là, ça a été chouette comme je ne peux pas vous dire.

J'ai sauté dans les bras de ma maman, et puis dans ceux de mon papa, et on s'est embrassés, et ils m'ont dit que j'avais grandi, que j'étais tout brun, et maman avait les yeux mouillés et papa il rigolait doucement en faisant « hé hé » et il me passait sa main sur les cheveux, moi j'ai commencé à leur raconter mes vacances, et nous sommes partis de la gare, et papa a perdu ma valise.

J'ai été content de retrouver la maison, elle sent bon, et puis ma chambre avec tous les jouets. Maman est allée préparer le déjeuner et elle cuisine mieux que tout le monde, et même quand elle rate un gâteau, il est meilleur que n'importe quoi que vous ayez jamais mangé.

(30 marks)

PLEASE START ANOTHER SHEET OF PAPER AND WRITE ON ALTERNATE LINES

2. Translate the following sentences into French:

- a) I am called Peter
- b) We finish the letter
- c) The boys write a card
- d) She used to buy sweets
- e) The baker was running
- f) I was laying the table
- g) He went to the shops
- h) The car has slowed down
- i) We have read the newspaper
- j) I had eaten an ice cream
- k) He had got taller
- l) We had laughed
- m) She will sing a song
- n) It will rain tomorrow
- o) The girls will be clever

(30 marks)

PLEASE START ANOTHER SHEET OF PAPER AND WRITE ON ALTERNATE LINES

3. You recently went on a trip Paris. Write an article for your school magazine to encourage others to visit the French capital.

You should include details about:

- **When and why you went to Paris**
- **The journey**
- **What you did and what you saw**
- **Why you think it is a good idea to go there**

(40 marks)

The account may be true or imaginary.

No credit will be given for pre-learnt but irrelevant material.

You should write using any tenses you consider appropriate. When you have finished, you should **CHECK YOUR WORK VERY CAREFULLY**, looking especially at verb forms, genders, adjectives and spelling.

Write approximately 130 words in French on alternate lines. Please do not write more than 150 words. You should concentrate on **accuracy** (and quality rather than quantity).

NAME: _____



H A R R O W S C H O O L

ENTRANCE SCHOLARSHIPS EXAMINATION 2012

Wednesday, February 29th, 9.00 a.m. to 9.30 a.m.

BIOLOGY

You have 30 minutes to answer all of the questions

You may use a calculator

The maximum mark for this paper is 35

Question 1

- Answer the following multiple-choice questions. Underline the correct answer with a ruler and pencil as shown in the example below:

Example Question: What, approximately, is the mass of an adult blue whale?

- i. 1.8 tonnes
- ii. 18 tonnes
- iii. 180 tonnes
- iv. 1800 tonnes

a) Which structures are found in both plant and animal cells? (1)

- i. nucleus, cell wall, vacuole, chloroplast
- ii. cell wall, nucleus, cytoplasm, mitochondria
- iii. cytoplasm, cell wall, nucleus, cell surface membrane
- iv. cell surface membrane, nucleus, mitochondria, cytoplasm

b) Which foods are all rich in protein? (1)

- i. cabbage, cheese, egg, beef
- ii. tuna, chicken, apple, peanut
- iii. butter, spinach, bacon, banana
- iv. lentil, lamb, turkey, milk

c) What do plants need in order to carry out photosynthesis? (1)

- i. chloroplasts, glucose, light, water
- ii. light, carbon dioxide, water, chlorophyll
- iii. carbon dioxide, oxygen, light, water
- iv. carbon dioxide, water, glucose, oxygen

d) The following diagram shows the concentrations in parts per million (ppm) of the insecticide DDT in the tissues of different organisms in a food chain. How many times greater is the concentration of DDT in the ospreys than in the plankton? (1)

plankton → *minnow* → *trout* → *osprey*
0.04 ppm 0.5 ppm 2 ppm 25 ppm

- i. 625
- ii. 25
- iii. 250
- iv. 62 500

- e) For approximately how long have modern humans (*Homo sapiens*) existed? (1)
- 2000 years
 - 200 000 years
 - 20 000 000 years
 - 2 000 000 000 years
- f) Which of the following animals are all vertebrates? (1)
- frog, shark, mouse, snake
 - octopus, horse, eagle, eel
 - turtle, earthworm, hummingbird, whale
 - jellyfish, mole, kangaroo, monkey
- g) Which of the following human characteristics shows continuous variation? (1)
- blood group
 - sex
 - body mass
 - eye colour
- h) Approximately how many times does a human heart beat over the course of a normal life span? (1)
- 3 000 000
 - 30 000 000
 - 300 000 000
 - 3 000 000 000
- i) What is the maximum magnification that can be achieved using a standard light microscope when the magnification of the eyepiece lens is x10 and the magnification of the high power objective lens is x40? (1)
- x40
 - x50
 - x400
 - x410

Question 2

- The Harvard Step Test was used to assess the level of fitness of players in an U16 five-a-side football team. The test was conducted as follows:
 - Each player stepped continuously onto and off a 45 cm high bench at a rate of 30 steps per minute for 5 minutes.
 - The player's heart rate was measured for 30 seconds, 1 minute after completing the test (= Pulse 1).
 - The player's heart rate was measured for 30 seconds, 2 minutes after completing the test (= Pulse 2).
 - The player's heart rate was measured for 30 seconds, 3 minutes after completing the test (= Pulse 3).



- The 3 heart rates (Pulse 1-3) are used to calculate a fitness score:

$$\text{fitness score} = 30000 \div (2 \times (\text{Pulse 1} + \text{Pulse 2} + \text{Pulse 3}))$$

- The fitness score is compared to a table of values to determine the player's level of fitness:

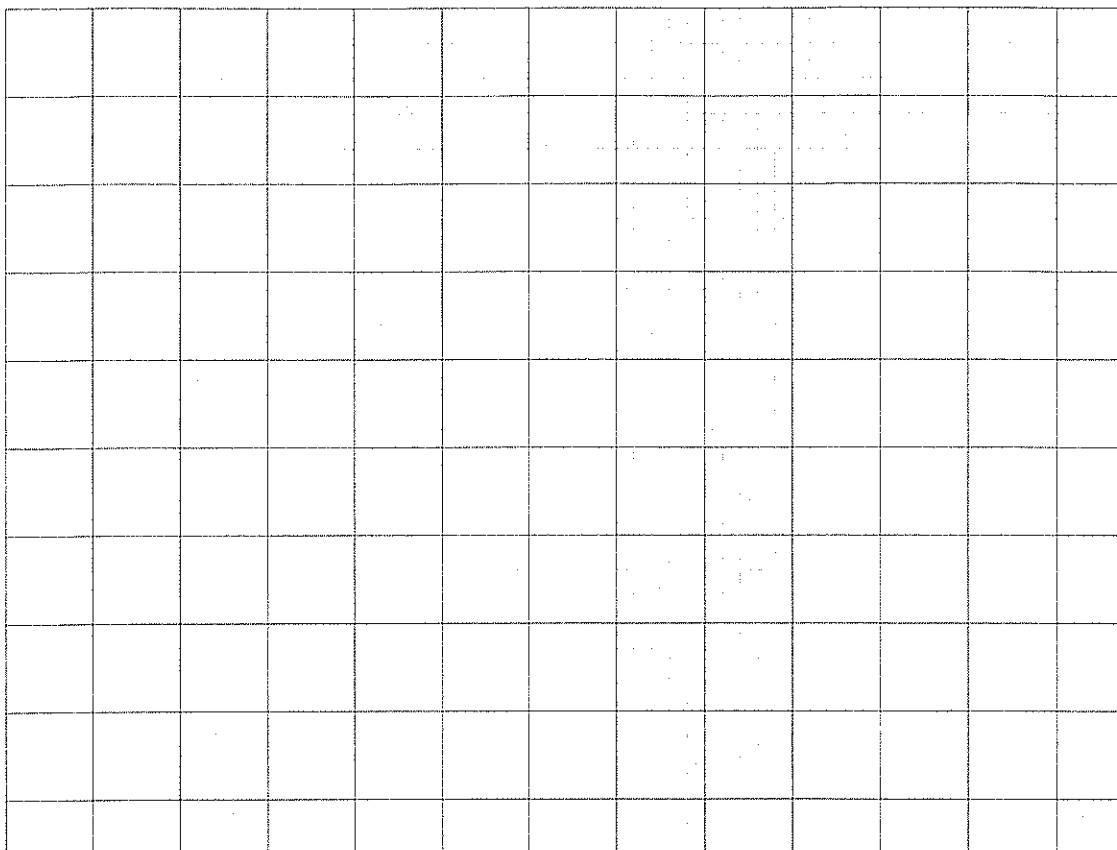
Fitness Score	Level of fitness
> 90.0	excellent
80.0 – 90.0	above average
65.0 – 79.9	average
55.0 – 64.9	below average
< 55.0	poor

- a) Use the information above to complete the table of results below.

(2)

Player	Pulse 1	Pulse 2	Pulse 3	Fitness Score	Level of Fitness
1	87	67	58	70.8	average
2	89	65	49		
3	78	65	53		
4	69	52	38		
5	77	59	43		

b) Plot a bar chart of the fitness scores of the five players on the graph paper below. (3)



c) What measures were taken to ensure that each player performed the same amount of exercise during the test? (2)

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d) Explain why the players' heart rates increased during exercise. (3)

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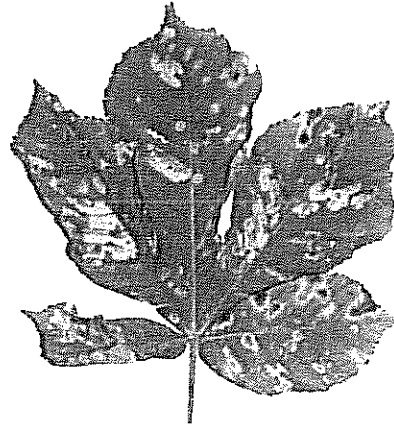
e) Explain why a higher fitness score indicates a higher level of fitness. (2)

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/ 12 marks

Question 3

- The horse chestnut leaf miner moth (*Cameraria ohridella*) arrived in the UK from continental Europe in 2002. The moth is a tiny insect (below left): an adult moth is just 5 mm long. The female lays its eggs on the upper surface of the leaf of a horse chestnut tree. After 2 weeks the eggs hatch into larvae which burrow into the leaf and feed on the plant tissues within. These leaf 'mines', where the larval have fed, appear as dark brown patches on the leaf (below right). After approximately 4 weeks of feeding, the larvae pupate in the leaf mines and emerge as adults 2 weeks later.



- a) Draw a picture of the adult moth from side-on in the space below. Label your picture to show the features that the moth shares with all other insects. (3)

- b) Approximately how many generations can the moth go through each year? Explain your answer. (2)

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c) An infestation of moths is said to give a horse chestnut tree an 'autumnal appearance'. Explain this description. (1)

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d) Explain how an infestation of the moths may affect the growth of a tree. (3)

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e) Describe how you could estimate the proportion of leaves on a tree that are infested with the moths. (3)

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f) Suggest two different methods by which the population of moths in the UK could be controlled. (2)

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/ 14 marks

NAME: _____



H A R R O W S C H O O L

ENTRANCE SCHOLARSHIPS EXAMINATION 2012

Wednesday, February 29th, 9.30 a.m. to 10.00 a.m.

CHEMISTRY

Answer ALL questions in the spaces provided.

You may use a calculator if you wish.

1. The chemical properties of some metals are described below. Read the information carefully and then answer the questions.

a) Calcium reacts quickly with cold water to produce a colourless gas that burns with a "pop".

What is the colourless gas produced?

[1]

b) Iron reacts slowly with water and air to produce a brown solid.

What is the brown solid commonly called? Give one method for preventing its formation when objects made of iron are in contact with water.

[2]

c) Zinc reacts with a blue solution of copper sulphate to produce a colourless solution and an orange/brown solid.

Give the names of both the colourless solution and the solid that are formed in this reaction. Give the word equation for the reaction.

Colourless solution = _____

Solid = _____

Word equation = _____

[3]

d) Potassium reacts vigorously with cold water, releasing the same gas as calcium. However, in this reaction, the gas catches fire during the reaction. The potassium reacts and dissolves to form a colourless solution.

What colour would universal indicator show when it was added to the solution after the reaction? Explain your answer.

[3]

e) Zinc reacts more vigorously with dilute hydrochloric acid than iron. Copper does not react at all. Place the elements calcium, iron, zinc, copper and potassium in order of reactivity, with the most reactive at the top.

_____ most reactive

_____ least reactive

[3]

f) Describe an experiment that you would do to enable you to place the metal, "lead" correctly in this list. You should describe what you would do, what observations you would make and the conclusions that you would draw.

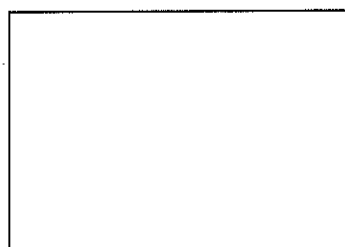
[4]

2. The third most abundant gas in the atmosphere is argon. This gas was first discovered by Old Harrovian scientist, Lord Rayleigh in 1894. 0.93 % of the volume of The Earth's atmosphere is argon. The gas has a density of 1.78 kg / m^3 . It is a very unreactive gas, and until 2000, no compounds of argon had ever been observed. In this year, scientists at The University of Helsinki made the first ever compound of argon, by shining UV light onto a frozen sample of the gas, which contained some hydrogen fluoride. Argon freezes at $-189 \text{ }^\circ\text{C}$ and boils at $-186 \text{ }^\circ\text{C}$. However, the compound made is only stable at temperatures below $-256 \text{ }^\circ\text{C}$.

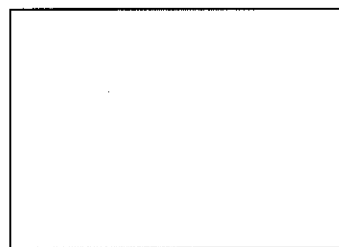
a) A chemistry laboratory at Harrow can be considered a cuboid, of dimensions $8.0\text{m} \times 13.5\text{m} \times 2.5\text{m}$. Calculate the volume of air in the laboratory, and hence the mass of argon in the room.

[3]

b) Draw diagrams in the boxes below to show the arrangement of atoms of argon at $-200 \text{ }^\circ\text{C}$ and $-150 \text{ }^\circ\text{C}$.



$-200 \text{ }^\circ\text{C}$



$-150 \text{ }^\circ\text{C}$

[2]

c) A molecule of the compound of argon was found to consist of three atoms, one each of hydrogen, argon and fluorine. Explain the difference between a compound and an element.

[2]

d) Suggest why it took scientists so long to identify argon as a part of the atmosphere.

[2]

3. Zinc may be extracted from a rock that contains a compound called zinc sulphide. The first stage in the process involves reacting the zinc sulphide with oxygen. This produces zinc oxide and the gas sulphur dioxide.

a) Sulphur dioxide must not be allowed to escape from the factory where the zinc is being made. Suggest two reasons why.

[2]

b) Sulphur dioxide can be absorbed in water to produce a solution. What pH would you expect this solution to have? Explain your answer.

[2]

c) In a reaction, 9.75 kg of zinc sulphide produced 8.14 kg of zinc oxide and 6.41 kg of sulphur dioxide. Calculate the mass of oxygen needed for this process.

[2]

d) Suggest how carbon could be used to extract zinc metal from the zinc oxide. In your answer you should:

a) give a word equation for the process, and

b) use the words "oxidised" and "reduced" in the correct context.

[4]

NAME: _____



H A R R O W

S C H O O L

ENTRANCE SCHOLARSHIPS EXAMINATION 2012

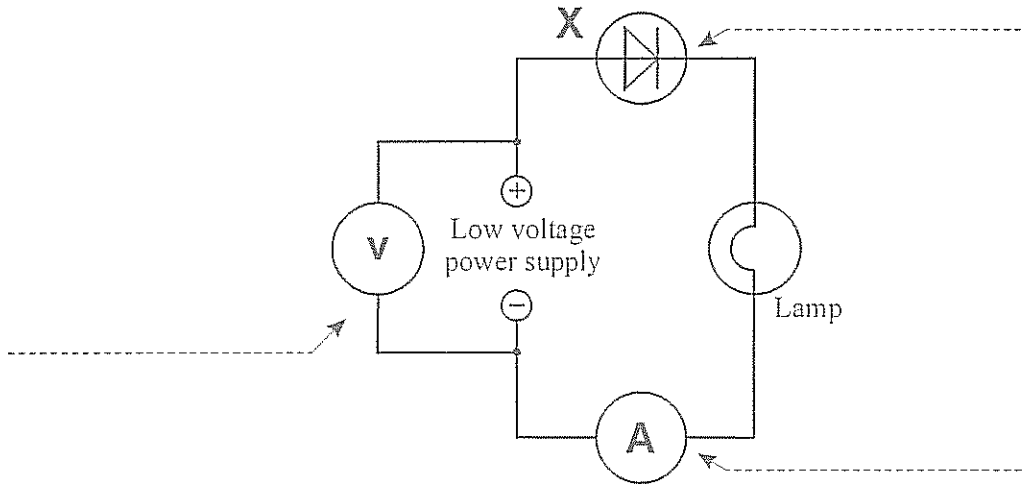
Wednesday, February 29th, 10.00 a.m. to 10.30 a.m.

PHYSICS

Answer ALL questions in the spaces provided. All working must be shown.

You may use a calculator if you wish.

1. (a) Add the missing labels to the diagram.

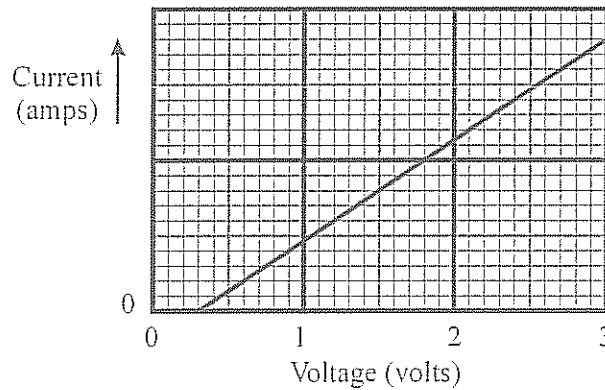


(3)

- (b) Some students use the circuit shown above.

They want to find out how the current through component X changes as they change the voltage.

The graph shows their results.



Describe, as fully as you can, what happens to the current through component X as the students increase the voltage.

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.....

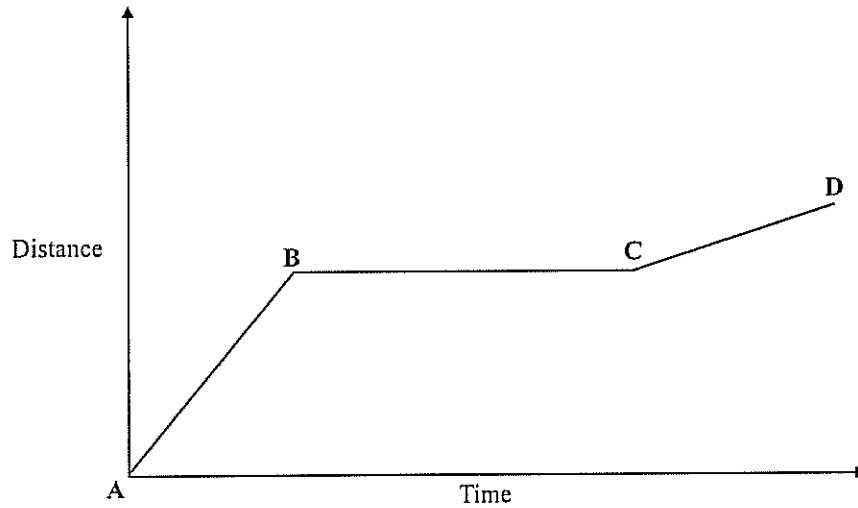
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.....

.....

(3)
(Total 6 marks)

2. The graph shows the distance a person walked on a short journey.



(a) Choose from the phrases listed to complete the statements which follow. You may use each statement once, more than once or not at all.

- standing still
- walking at constant speed
- walking with an increasing speed
- walking with a decreasing speed

(i) Between points A and B the person is
..... (1)

(ii) Between points B and C the person is
..... (1)

(b) Complete the sentence.

You can tell that the speed of the person between points A and B is
than the speed between points C and D because
..... (2)

(c) Write the equation which relates distance, speed and time.

..... (1)
(Total 5 marks)

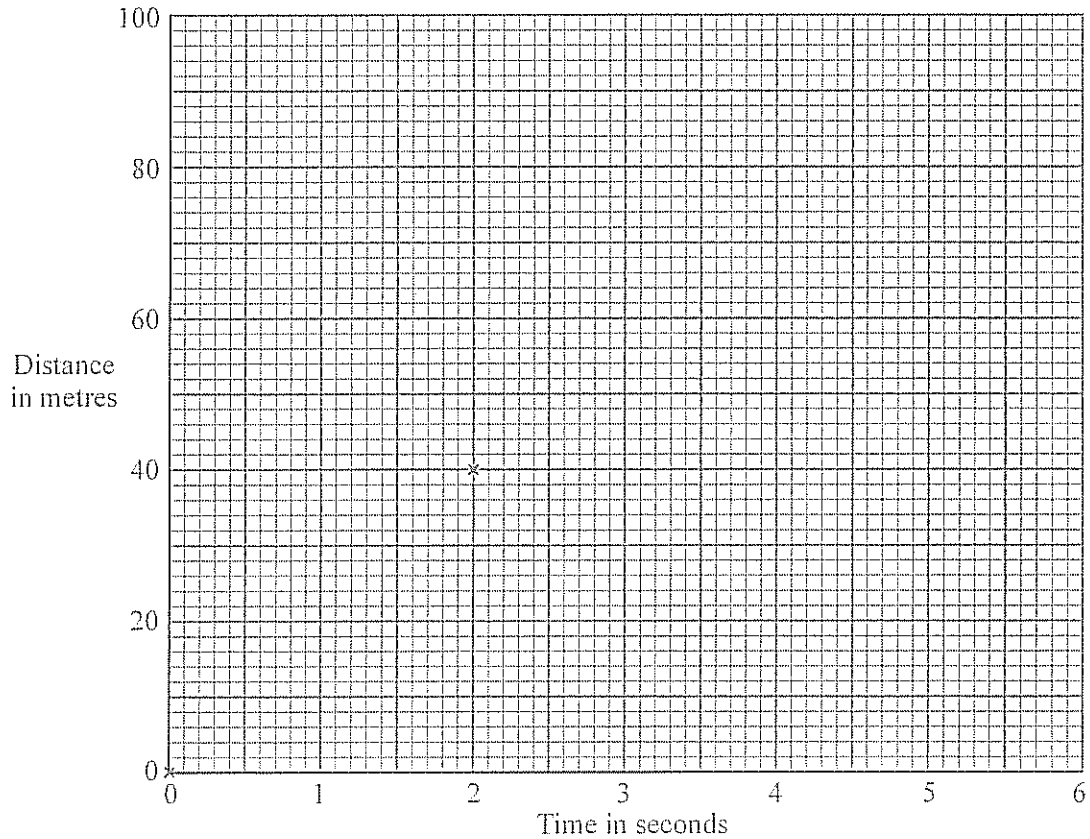
3. The table gives values of distance and time for a car moving along a road.

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Distance in metres	0	20	40	60	80	100
Time in seconds	0	1	2	3	4	5

(a) Draw a graph of distance against time.

Two of the points have been plotted for you.



(3)

(b) Use your graph to find:

(i) the distance moved by the car in 2.5 seconds

distance =metres

(1)

(ii) how many seconds it takes the car to move 30 metres.

time =seconds

(1)

- (c) Complete this sentence by crossing out the **two** lines in the box that are wrong.

The car is

slowing down
moving at a steady speed
speeding up

 .

(1)

- (d) Drinking alcohol makes a person's reactions slower.

Explain why it is a bad idea for people to drink alcohol before driving a car.

.....
.....
.....
.....

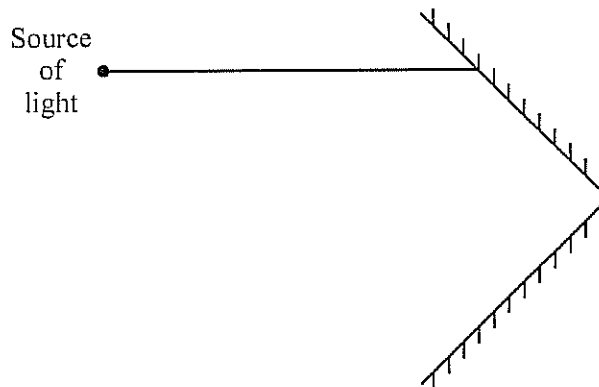
(2)

(Total 8 marks)

4. (a) The diagram shows two mirrors at right angles to each other. A ray of light shines onto one mirror as shown.

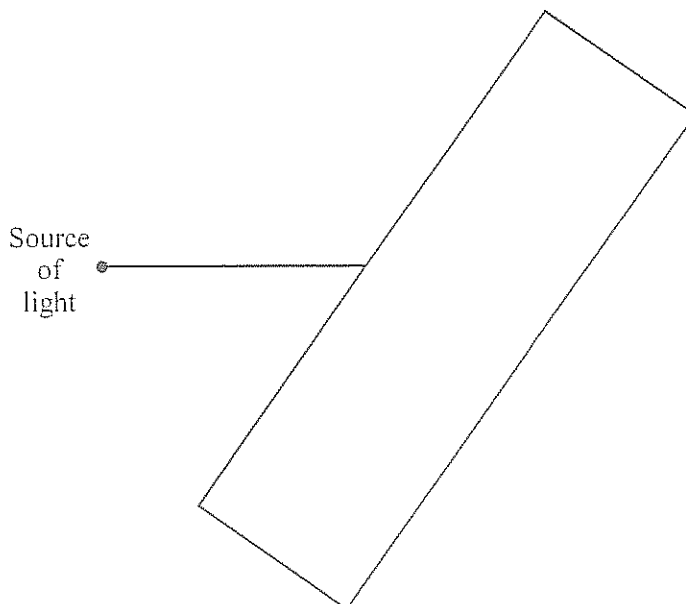
Carefully draw the path of the ray which is reflected from both mirrors.

Draw an arrow on the ray to show the direction of the light.



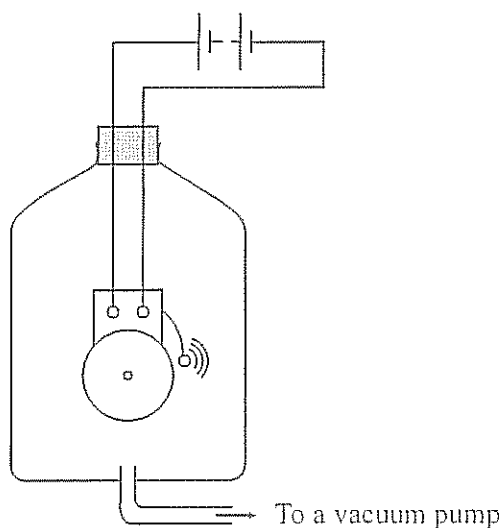
(3)

- (b) Light can also be made to change direction as it passes into and out from a block of glass. Complete the ray diagram overleaf.



(2)
(Total 5 marks)

5. (a) The diagram shows an electric bell inside a glass jar. The bell can be heard ringing.



In the following sentences, cross out the two lines that are wrong in each box.

When all the air has been taken out of the glass jar, the ringing sound will

stop.
get louder.
get quieter.

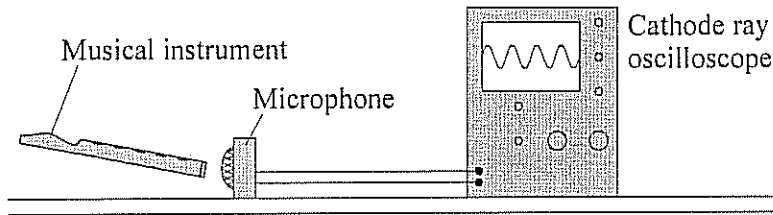
This is because sound

travels faster
travels slower
cannot travel

through a vacuum.

(2)

- (b) The microphone and cathode ray oscilloscope are used to show the sound wave pattern of a musical instrument.



One of the following statements describes what a microphone does. Tick the box next to the correct statement.

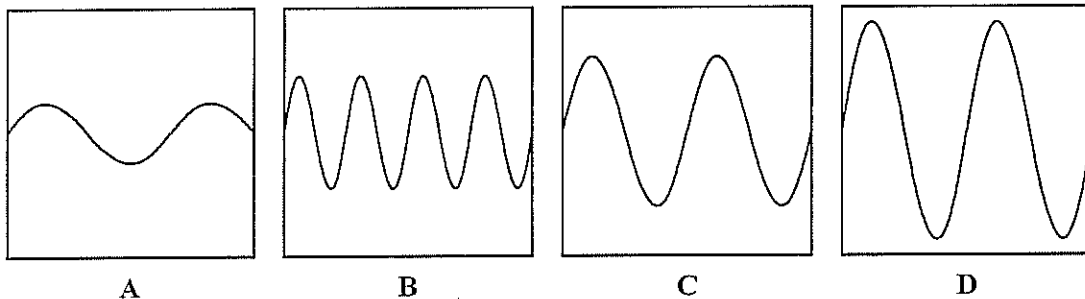
A microphone transfers sound energy to light energy.

A microphone transfers sound energy to electrical energy.

A microphone transfers electrical energy to sound energy.

(1)

- (c) Four different sound wave patterns are shown. They are all drawn to the same scale.



- (i) Which sound wave pattern has the highest pitch?

.....

Give a reason for your answer.

.....

(2)

- (ii) Which sound wave pattern is the loudest?

.....

Give a reason for your answer.

.....

.....

(2)

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Physics

- (d) (i) The frequency of some sounds is too high for humans to hear. Underline the word which describes this sound.

microwave ultrasound ultraviolet

(1)

- (ii) Give one use for this type of sound wave.

.....

(1)

(Total 9 marks)

6. The table gives data about two space telescopes. The Hubble telescope is already in space, but the James Webb telescope is still being built.

Name of telescope	Mirror diameter in metres	Launch year	Orbit distance from the Earth in kilometres
Hubble	2.4	1990	575
James Webb	6.5	2013	1 500 000

- (a) Give one reason why the image from an optical telescope on the Earth may not be as clear as the image produced by a space telescope.

.....
.....

(1)

- (b) Explain why it is easier for astronauts to service the Hubble telescope than it will be for astronauts to service the James Webb telescope.

.....
.....
.....

(2)

- (c) The large mirror for the James Webb telescope will be folded, launched into space and then opened out. This will be a complicated process so a working scale model of the mirror system has been built.

Which statement gives a reason for building the scale model?

Put a tick (✓) in the box next to your answer.

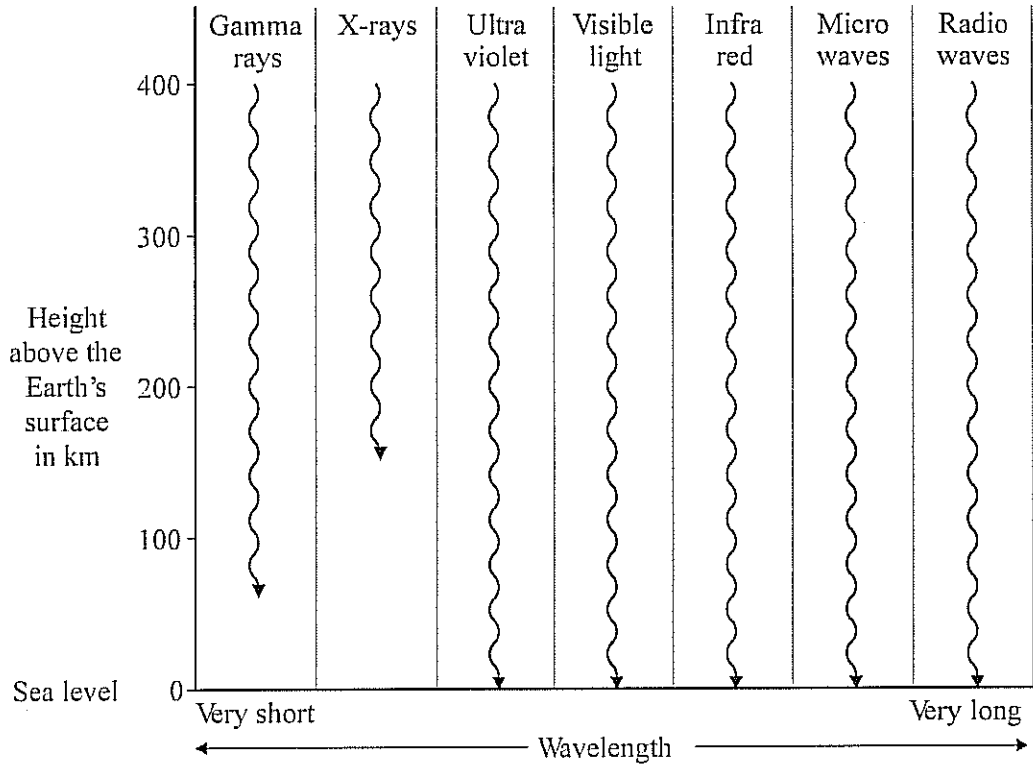
To see what the mirror system will look like

To test the design to make sure it will work

To measure the power needed by the telescope

(1)

- (d) The diagram shows how far different types of electromagnetic wave can travel through the Earth's atmosphere before being absorbed.



Name two types of electromagnetic wave that can be detected by a space telescope but cannot be detected by a telescope positioned on Earth.

1

2

(2)

(Total 6 marks)



H A R R O W S C H O O L

ENTRANCE SCHOLARSHIPS EXAMINATION 2012

Wednesday, February 29th, 11.00 a.m. to 12.30 p.m.

HISTORY

There are three sections.

You are advised to spend approximately 30 minutes on each.

The quality of your answers is more important than the quantity, so spend 5-10 minutes thinking and 20-25 minutes writing for each section.

Each section is worth 30 marks in total.

SECTION A

In the ninth century England was not a united country; instead it was divided into a number of smaller kingdoms, the largest and most important of which were Northumbria in the North, Mercia in the Midlands and Wessex in the South. From 871 until 899 Wessex was ruled by King Alfred the Great. During Alfred's reign all the English kingdoms came under attack from the Vikings, bands of pagan (i.e. non-Christian) warriors, mainly from Denmark. By the end of the century all the English kingdoms apart from Wessex had been conquered and settled by the Vikings. Alfred's Wessex was the only kingdom to survive, though it did suffer considerable destruction and came close to defeat in the 870s.



However, in 878 Alfred won an important victory against the Vikings at the Battle of Edington and forced the Viking leader Guthrum to sign a peace treaty, after which Wessex remained free from Viking attacks for the next ten years or so. During the 880s Alfred reorganised his military forces, built up a navy and constructed a network of defensive fortifications, with the result that when the Vikings returned to threaten Wessex again in the 890s he was able to repel them.

Apart from his military reforms, Alfred's other great interest in the 880s was an ambitious programme to revive religion and education throughout his kingdom, which involved amongst other things: the recruitment of scholars from outside Wessex; the requirement that those who held political authority (such as sheriffs, who governed counties on behalf of the king) should be literate; and a series of translations from Latin into English of books that Alfred thought were 'most necessary for all men to know', some of which the king translated himself.

Study the following sources about Alfred's interest in religion and education, and then answer the following question.

(1) How far do these sources support the view that Alfred's interest in education was motivated entirely by the strength of his religious feeling?

[30 marks]

Source A: King Alfred devoted much energy to translating important works of literature from Latin into English, and here, in the preface that he wrote for a work concerned with authority and government, he reflects on the importance of reviving learning in his kingdom.

Learning had declined so thoroughly in England that there were very few men who could understand religious services even in English, or translate a single letter from Latin into English. Thanks be to God almighty that we now have any supply of teachers at all! Remember what punishments befell us in this world when we did not cherish learning or transmit it to other men. We were Christians in name alone, and very few of us possessed Christian virtues. When I reflected on all this, I reflected how – before everything was ransacked and burned – the churches throughout England stood filled with treasures and books.

Alfred's Preface to his translation of Pope Gregory's Pastoral Care, completed by about 890.

Source B: King Alfred's contemporary biographer, a bishop who was born in Wales but settled in Wessex and was rewarded by the king, explains Alfred's growing interest in learning.

It was also in 887 that Alfred, king of the Anglo-Saxons, first began through divine inspiration to read Latin and to translate at the same time. One day we were sitting together in the royal chamber and I was reading aloud some passage to him from a certain book. As he was listening intently to this and was carefully turning it over in his mind, he suddenly showed me a little book which he constantly carried on his person, in which were written the day-time services and some psalms and certain prayers which he had learned in his youth. He told me to copy the passage into the little book. When I heard this, I realised his natural good-will as well as his devout enthusiasm for the pursuit of divine wisdom.

Asser, Life of King Alfred, written in 893.

Source C: The same author reflects on the importance of education and learning.

The sheriffs made every effort to apply themselves to learning how to read. They regretted that they had not applied themselves to such pursuits in their youth, and considered the youth of the present day to be fortunate, who had the luck to be well-educated. I have explained this concern among young and old for learning how to read to give some idea of Alfred's character.

Asser, Life of King Alfred, written in 893.

Source D: This modern historian puts Alfred's concern with religion and education into a wider context.

Alfred's practical measures for the defence of Wessex undertaken in the 880s would protect the kingdom from the threat of further Viking attack. But if his military reforms can be regarded as prevention, his programme for the revival of religion and learning was the intended cure. It was clearly felt, however, that the Church had fallen into serious decay during the ninth century. Although some laid the blame on the Viking invasions, others attributed the decline to general failings on the part of the English themselves. Alfred seems to have regarded the Viking invasions as a form of divine punishment for the decline, and his endeavours to revive religion and learning can be seen as an attempt to strike at the heart of the problem and thereby to ensure peace and prosperity in the future.

Simon Keynes, Alfred the Great, published in 1983.

SECTION B

Answer ONE of these questions. Each question is worth 30 marks.

Either

- (2) How important are people's ideas and beliefs in explaining what happens in History? Use any period or periods of History you have studied to answer this question.

or

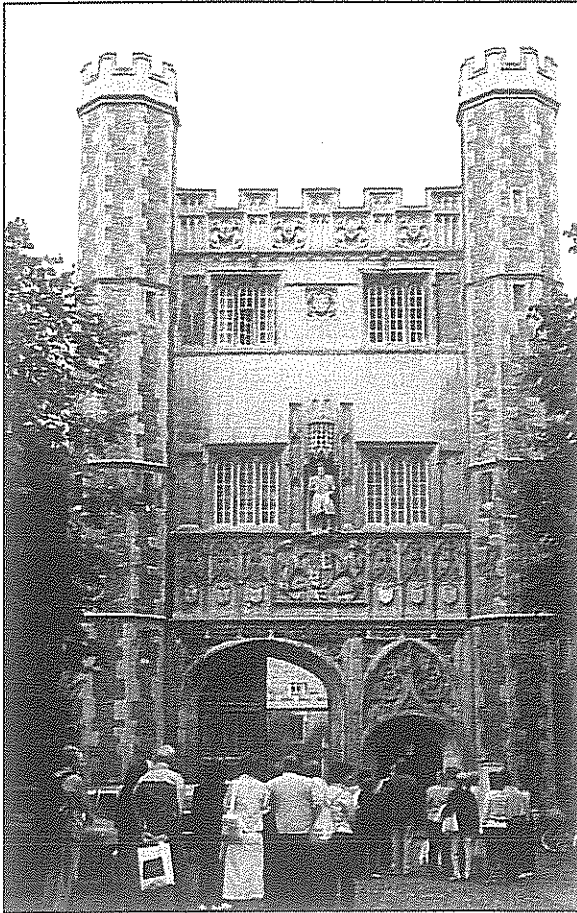
- (3) 'All political careers end in failure.' Use any period or periods of History you have studied to say whether you agree with this claim.

SECTION C

- (4) Cambridge University is composed of 31 separate colleges, each with its own buildings and grounds – student accommodation, lecture halls, theatre, dining hall, bar, common room, chapel, gardens etc. The oldest college is Peterhouse, founded in 1284, the youngest is Robinson College, founded in 1977.

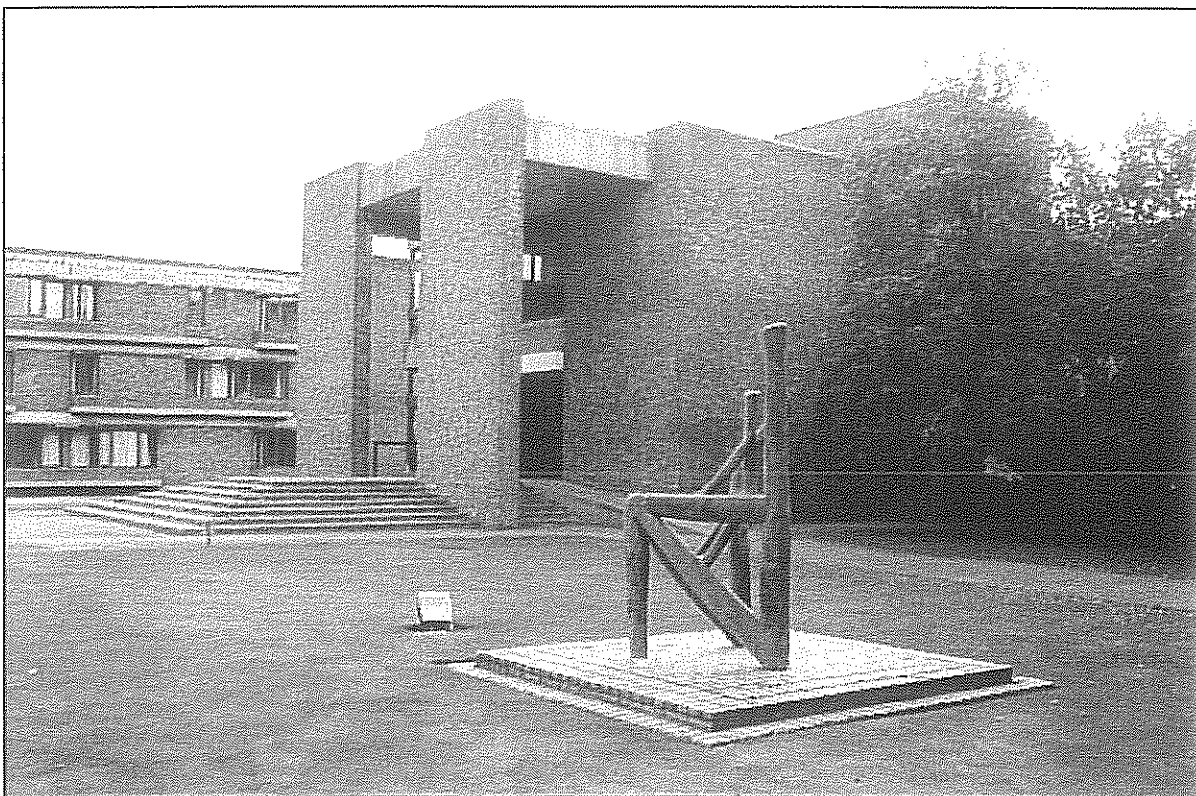
Study these photographs of the main entrances of two colleges, Trinity College and Churchill College. What can you deduce from these photographs about the two colleges? Feel free to comment on anything which interests you about these pictures: marks will be awarded for intelligent deductions, whether they are correct or not.

[30 marks]



Above and left: Trinity College. The statue is King Henry VIII (reigned 1509-47) and in his right hand he is holding a chair leg. Underneath him are the coats of arms of King Edward III (reigned 1327-77) and his sons.

Below: Churchill College. The sculpture was made by the Indian sculptor Dhruva Mistry in 1990 and is entitled 'Diagram of an Object'.





H A R R O W S C H O O L

ENTRANCE SCHOLARSHIPS EXAMINATION 2012

Wednesday, February 29th, 2.15 p.m. to 3.45 p.m.

LATIN

GENERAL INSTRUCTIONS:

You must attempt questions one (30 marks), two (30 marks), three (25 marks), which all cover the same story, split into three passages.

You must then do either question four (harder passages of Latin on the same story) or question five (English to Latin sentences).

If you have time, you may attempt both questions four and five. If you do this, the higher mark will be counted, but a strong performance on both optional questions will be taken into consideration.

*You are not permitted to write anything down for the first 10 minutes of the examination.
This time should be spent reading the examination paper.*

It will help if you study the Latin passages and the English introduction to each passage during the first 10 minutes. You are also advised to read all the footnotes carefully, as they contain helpful information.

New words in this paper are only given in footnotes the first time they appear. You should make an intelligent guess at words you do not know, using any hints in the footnotes or in the English introduction to each passage.

Question One

Please note that the Latin passages in Questions 1-3 form a continuous story.

Read the following passage and answer the questions on the facing page.

The Fall of Gabii (1) : Tarquin's trick.

This story was originally told by the Roman historian Livy. Tarquin the Proud was the last king of Rome, which, at this early stage in its history, was still a minor power but was beginning to emerge as the most influential city in central Italy. In this passage, Tarquin tries and initially fails to conquer a local rival, the city of Gabii. When his attack is resisted by the Gabines (the people of Gabii), he resorts to trickery and deception. (Once Gabii fell, Tarquin went on to make alliances with other local peoples, including the Etruscans and the Aequi).

1 Tarquinius erat rex crudelis in pace, in bello imperator¹ callidus² qui plurima bella
2 excipit.³ olim proximam urbem, Gabios nomine, oppugnavit sed expugnare⁴ non
3 poterat, quod moenia⁵ validissima erant. deinde igitur eam obsidebat,⁶ nec hoc
4 modo⁷ succedit cum Gabini copias a moenibus pepulissent. tandem Tarquinius,
5 omnibus aliis modis temptatis,⁸ urbem Gabios vincere dolo⁹ (minime Romano)
6 constituit; simulavit¹⁰ se destitisse¹¹ Romam rediit. filium interea, Sextum nomine,
7 reliquit ut dolum perficeret.¹²
8 ille, quasi¹³ transfuga,¹⁴ societatem cum Gabinis iniit, praetendens¹⁵ crudelitatem
9 patris. Gabini transfugam acceperunt. 'cur admiramur¹⁶?' dicebant, 'Tarquinius iam
10 cives et socios crudeliter tractavit¹⁷; nunc eadem in liberos suos facit!'
11 mox fidem Gabinorum comparaverat¹⁸ et particeps consilii¹⁹ factus erat Sextus.

¹ imperator, imperatoris (m) = general

² callidus-a-um (adj) = cunning, clever

³ excipio, excipere, excipii, exceptus = engage in

⁴ expugno, expugnare, expugnaui, expugnatus (1) = take by storm

⁵ moenia, moenium (n.pl) = city walls

⁶ obsideo, obsidere, obsedi, obsessus (2) = besiege

⁷ modus-i (m) = way, method, manner

⁸ tempto, temptare, temptavi, temptatus (1) = attempt, try

⁹ dolus-i (m) = trick

¹⁰ simulo, simulare, simulavi, simulatus (1) = pretend

¹¹ desisto, desistere, destiti, destitus (3) = give up

¹² perficio, perficere, perfeci, perfectus (3½) = carry out

¹³ quasi = as if

¹⁴ transfuga -ae (m) = deserter

¹⁵ praetendo, praetendere, praetendi, praetentus (3) = allege

¹⁶ admiror, admirari, admiratus sum (1) = be surprised

¹⁷ tracto, tractare, tractavi, tractatus (1) = treat

¹⁸ comparo, comparare, comparavi, comparatus (1) = win, get

¹⁹ consilium -i (n) = council

Questions on Passage One:

- a) (i) What positive detail are we given about Tarquin in line 1? [1]
(ii) What information in lines 1-2 shows us that he was a vigorous general? [1]
(iii) How does the word order of the Latin emphasise the contrast between the details given in line 1? [2]
- b) Write down the Latin word in line 2 which shows the geographical relationship between Rome and Gabii, and attempt a translation of this word. [1]
- c) Why was Tarquin unable to take Gabii by storm? [2]
- d) (i) Write down and translate the Latin phrase which shows that the siege of Gabii was unsuccessful. [3]
(ii) How did the Gabines prevent the siege? [3]
- e) (i) Write down and translate the four words which show that the trick was a last resort. [3]
(ii) What Latin construction are these four words an example of? [1]
(iii) Explain in your own words why the trick is described as *minime Romano* (line 5). [2]
- f) What did Tarquin pretend, and what did he do next? [1]
- g) Why did Tarquin leave his son behind? [1]
- h) What does *transfuga* (line 8) literally mean? [1]
- i) (i) What reason did Sextus give for joining the Gabines? [1]
(ii) Study the words of the Gabines (lines 9-10) carefully and explain in your own words why they were not surprised by the reason Sextus gave for joining them. [3]
- j) (i) Who is the subject of the final sentence? [1]
(ii) What two things did this person achieve? [2]
- k) How many different tenses are used in this passage? [1]

[30 marks]

P.T.O.

Question Two

Translate the following passage into good English. Write your translation on alternate lines.

The Fall of Gabii (2) : Tarquin's message

Sextus becomes powerful and influential in Gabii and then asks his father what he should do.

Sextus plerumque¹ in consilio humilis erat et cum aliis principibus², qui et seniores et peritiores³ de rebus Gabinis erant, consentiebat.⁴ eos tamen ut bellum cum Romanis inirent iterum iterumque hortabatur. tandem Gabini hoc facere constituerunt. Sexto enim credebant dicenti Romanos paucas opes⁵ et animos⁶ fractos habere. itaque cum pater Romae non potentior⁷ quam filius Gabiis esset, nuntius fidelis ad Tarquinius clam⁸ mittitur. cum nuntius Romam advenisset, Tarquinius non ausus est⁹ mandatum¹⁰ scriptum ei dare, ne Gabini id invenirent. igitur nihil voce respondit sed in horto, sequente nuntio filii, inambulavit¹¹ et summa¹² papaverum¹³ capita¹⁴ baculo¹⁵ decutiebat.

[30 marks]

Question Three

Read the following passage and answer the questions on the facing page.

The Fall of Gabii (3) : Sextus acts upon his father's advice.

- 1 nullo responso a Tarquinio dicto, nuntius Gabios rediit. timebat et rem imperfectam¹⁶
- 2 et iram Sexti. ubi tamen narravit quid pater in horto fecisset¹⁷, filius intellexit¹⁸ hoc
- 3 esse mandatum. itaque principes Gabinos necavit, bona¹⁹ eorum abstulit.²⁰ hoc modo
- 4 Sextus ditissimus²¹ erat et brevi tempore pauperiores cives facile coercere,²²
- 5 Gabios ipsos patri sine certamine²³ tradere poterat.

¹ plerumque = for the most part

² principes, principum (m.pl) = leading men

³ peritus-a-um = experienced

⁴ consentio, consentire, consensi, consensus (4) = agree

⁵ opes, opum (f.pl) = resources

⁶ animus-i (m) = spirit

⁷ potens, potentis = powerful

⁸ clam = secretly

⁹ audeo, audere, ausus sum (semi-deponent – i.e. the perfect tenses are passive in form but active in meaning) = dare

¹⁰ mandatum -i (n) = message, instruction

¹¹ inambulo-are = walk up and down

¹² summus-a-um = tallest

¹³ papaver, papaveris (n) = poppy

¹⁴ caput, capitis (n) = head

¹⁵ baculum -i (n) = stick

¹⁶ imperfectam: this word carries the opposite meaning to the verb in footnote 12, Passage One.

¹⁷ quid.....fecisset = 'what..... had done'

¹⁸ intellego, intellegere, intellexi, intellexus (3) = understand

¹⁹ bona, bonorum (n.pl) = property

²⁰ 'abs' = 'away'

²¹ dives, divitis (adj) = rich

²² coerceo, coercere, coercui, coercitus = control

²³ certamen, certaminis (n) = struggle, conflict

Questions on Passage Three:

- a) Explain in your own words the two things the messenger feared upon his return. [2]
- b) Sextus understands his father's message. What two actions does he carry out? [3]
- c) What is the immediate result of these two actions? [1]
- d) Describe in detail the final two actions Sextus is able to carry out soon afterwards. [5]
- e) *filius intellexit hoc esse mandatum* (lines 2-3).
- (i) Which of the following best describes these words: [1]
INDIRECT COMMAND ABLATIVE ABSOLUTE INDIRECT STATEMENT
- (ii) Explain in your own words what Tarquin's message to his son was. [3]
- f) From Passage Three, write down in Latin one example of each of the following: [6]
- i. A perfect passive participle
 - ii. A superlative adjective
 - iii. A pluperfect subjunctive
 - iv. A 2nd conjugation present infinitive active
 - v. a preposition that takes the ablative case
 - vi. a comparative adjective
- g) Give an English word *derived* from: [4]
- i. nuntius
 - ii. hortor
 - iii. invenirent
 - iv. praetendens

[25 Marks]

P.T.O.

Remember, you can attempt either question four or question five. If you attempt both, the higher mark will be counted.

Question Four

Read the following passages from Livy. They cover the story of Gabii which is featured in Passages One, Two and Three. Then answer the questions that follow.

A:

itaque postquam satis virium conlectum ad omnes conatus videbat, tum ex suis unum sciscitatum Romam ad patrem mittit, quidnam se facere vellet.

B:

exceptit deinde lentius spe bellum, quo Gabios, propinquam urbem, nequiquam vi adortus, cum obsidendi quoque urbem spes pulso a moenibus adempta esset, postremo minime arte Romana, fraude ac dolo, adgressus est.

C:

Gabiis receptis Tarquinius pacem cum Aequorum gente fecit.

D:

Sexto ubi quid vellet parens quidve praeciperet tacitis ambagibus patuit, primores civitatis criminando alios apud populum, alios sua ipsos invidia opportunos interfecit.

a) Put the four passages into the correct sequence. [4]

b) Explain what is happening in each of the four passages, as best you can. [10]
[3x3, 1x1]

c) Give an intelligent guess of the meaning of the following:

(i) exceptit deinde lentius spe bellum [1]

[15 Marks]

P.T.O.

Question Five

Translate the following sentences into Latin. Use the vocabulary given earlier in the paper.

- a) The wealthy citizens were killed by Sextus. [5]
- b) We decided to treat the poor deserters well. [5]
- c) They returned to Gabii in order to besiege the city. [5]

[15 Marks]

Total Marks: 100



H A R R O W S C H O O L

ENTRANCE SCHOLARSHIPS EXAMINATION 2012

Thursday, March 1st, 9.00 a.m. to 10.30 a.m.

MATHEMATICS II

GENERAL INSTRUCTIONS:

You may attempt all the questions if you have time, but greater credit will be given for complete solutions. Show all your working. Calculators may NOT be used.

1. Solve the following equations

(a) $x^2 = 4^3$

(b) $3^{2x+1} = 3^5$

(c) $10^{2x} = 100000$

(d) $2^{2x} = 8^3$

(e) $2^{x+1} = 8^{x-1}$

(f) $4^{2x+1} = 8^{x+1}$

2. A goose on the ground watched a flock of geese flying overhead and asked, "Where are you going you hundred geese?" One of them answered, "We are not a hundred. We, and all of us again, and half of us, and a quarter of us, and you as well, that would be a hundred."

How many geese were in the flock?

3. (a) A quadrilateral has angles such that, when put in order of increasing size, they form a sequence where each term is twice the previous term. Find the size of the second smallest angle.

(b) Find the area of the triangle made by connecting the following points on an x - y grid: $(0, 0)$, $(5, 1)$ and $(1, 5)$.

4. Draw x and y axes from -6 to 6 to a scale of 1 cm per unit.

(a) Plot the points $A(5, 1)$, $B(3, 1)$, $C(4, 2)$, $D(2, 2)$. Connect these in the order $ABCD$ to make a Z shape. Label it $Z1$

Now perform the following transformations.

(b) Reflect $Z1$ in the x axis. Label the new shape $Z2$.

(c) Rotate $Z2$ 90° clockwise about $(0, 0)$. Label the new shape $Z3$.

(d) Reflect $Z3$ in the line $y = x$. Label the new shape $Z4$.

(e) What single transformation would transform $Z4$ to $Z1$?

(f) Draw on your diagram the line $y = 1 - x$ and reflect $Z4$ in this line to give $Z5$.

(g) What single transformation would transform $Z2$ to $Z5$?

5. (a) Evaluate the following $(\sqrt{13})^2$, $(\sqrt{3})^4$, $(4\sqrt{7})^2$
- (b) Put the following in ascending order, making your reasoning clear,
 $\sqrt{101}$, $3\sqrt{11}$, $4\sqrt{7}$, $6\sqrt{3}$, $7\sqrt{2}$
6. (a) Harry cycles up a hill at an average speed of 4m/s and then back via the same route at an average of 12 m/s. Find the average speed for the whole journey.
- (b) A train leaves Leeds for Edinburgh at 1:00pm; another train leaves Edinburgh for Leeds at 1:50pm. Both trains travel at the same uniform speed and take 3 hours to complete the journey. At what time do the trains pass each other?

7. Given that

$$\begin{aligned}4x - y &= 5 \\4y - z &= 7 \\4z - x &= 18\end{aligned}$$

find the value of $x + y + z$?

If x , y and z are positive whole numbers then find their values.

8. A curve has the equation

$$y = \frac{6}{x}$$

Make a table of values to find y for $x = -6, -4, -3, -2, -1, -\frac{1}{2}, \frac{1}{2}, 1, 2, 3, 4, 6$

Explain what happens to the values of y when x becomes a very large positive or negative number.

Explore what happens to y when x gets close to 0.

Plot the graph of the curve taking a scale of 1cm per unit on each axis.

Add to your graph the line with equation $y = x$.

Explain how you can use your graph to find an estimate for the value of $\sqrt{6}$.



H A R R O W
S C H O O L

ENTRANCE SCHOLARSHIPS EXAMINATION 2012

Thursday, March 1st, 11.00 a.m. to 12.00 noon

GREEK

GENERAL INSTRUCTIONS:

Before you begin, state at the top of the paper how long you have been studying Greek and for how many lessons per week.

Answer as many questions as you can. Use the whole paper for help with vocabulary.

NB. New words in this paper are only given in footnotes the first time they appear.

You should make an intelligent guess at words you do not know.

SECTION A (70 marks)

1 Identify the following characters; some are real, some are fictional.

- (a) Ὀρφευς
- (b) ῥυπερτ Μυρδοχ
- (c) Βελλατριξ Λεστραγγε
- (d) Ὀδυσσευς
- (e) ῥωμυλος [5]

2 Transliterate the following (i.e. write them in Greek letters). Long vowels are indicated with a macron (e.g. 'ē' or 'ō'). Remember to add breathings where appropriate:

- (a) cycle
- (b) plasma
- (c) antithesis
- (d) chronic
- (e) Paris
- (f) Aphroditē
- (g) Hydra [7]

3 Imagine that each letter of the Greek alphabet is represented by a number ($\alpha = 1$, $\beta = 2$, etc.). Write down in Greek and translate the words represented by the following number sequences. Remember to add breathings where appropriate:

- (a) 2 - 1 - 11 - 11 - 24
- (b) 4 - 5 - 13 - 4 - 17 - 15 - 13
- (c) 1 - 3 - 1 - 8 - 15 - 18
- (d) 9 - 1 - 19 - 17 - 15 - 18 [8]

4 Translate into English:

- (a) ἐθελω ἐνθαδε μενειν. [4]
- (b) οἱ γεροντες οὐχ οἱοι τ'εἰσι κρυπτειν τα χρηματα. [7]
- (c) τρια ἐτη ἐμαχεσαμεθα. [4]
- (d) ὁ φυλαξ σοφωτερος ἐστι του κηρυκος. [4]
- (e) παντες οἱ ἱπποι εἰς τον ποταμον ἐπεσον. [6]

[25]

- 5 Change the following nouns from plural to singular, keeping the same case. Write out the Greek form and give the basic meaning of each word.

Example: τους κηρυκας = τον κηρυκα (= messenger)

- (a) τους λογους
(b) ταις νησοις
(c) αι νηες [6]

- 6 Give the Greek word or words (and their meaning) that the following English words are derived from:

- (a) hypnosis
(b) strategy (give 2 Greek words)
(c) bibliography (give 2 Greek words) [10]

- 7 Write out any **THREE** of the following:

- (a) The strong aorist active *and* imperfect active of λειπω.
(b) το ονομα in all its cases (singular & plural).
(c) ο κριτης in all its cases (singular & plural).
(d) The Definite Article in all genders and cases (singular & plural). [9]

SECTION B (10 marks)

Translate into Greek:

- (a) We trust the allies [3]
(b) Peace is beautiful. [3]
(c) The boys sat on the earth. [4]

[10]

SECTION C (20 marks)

Translate the passage overleaf into good English. Write your translation on alternate lines.

Remember, unfamiliar words are only underlined the first time they are used. You are strongly advised to write a translation in rough, and not to write out your neat copy translation until you have considered the whole story.

The names in this story are all mentioned in the description below the title (see below), and you should use the English description of the story to help you work out the Greek.

The Death of Hektor

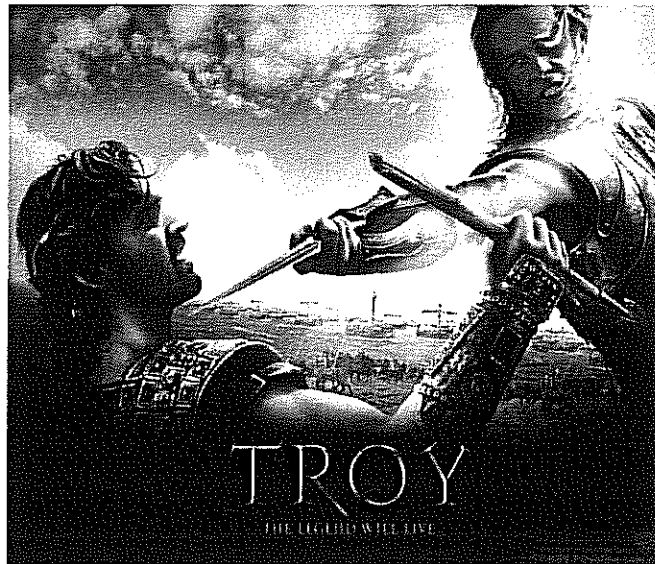
In the Trojan War, after the death of Patroklos, Achilles returns to the fighting, intending to take revenge on Hektor. Meanwhile, on Olympus, Zeus laments the fact that a man as dutiful to the gods as Hektor should lose his life. Athene reminds him that it is Hektor's destiny to die. Hektor is tricked into fighting Achilles by the appearance of someone whom he takes to be his brother Deiphobus.

ὁ Ἀχιλλεύς ἠθέλησε ἀποκτείνειν τὸν Ἑκτόρα διότι¹ ὁ Πατρόκλος, φίλος τοῦ Ἀχιλλεύου ἀριστὸς ὢν, ἀπέθανεν. τρις² οὖν ἐδίωξεν αὐτὸν περὶ τῶν τῆς Τροίας τειχῶν.

καὶ ὁ Ζεὺς, καίπερ³ οἰκτιρῶν⁴ τὸν Ἑκτόρα, οὐχ οἷος τῆν σφίζει αὐτὸν. οἱ γὰρ ἄλλοι θεοὶ εἶπον ὅτι⁵ ἡ μοῖρα⁶ αὐτοῦ ἐστὶν ἀποθνήσκειν. ἐπεὶ δὲ ἡ Ἀθήνη κατέβη⁷ ἀπὸ τοῦ Ὀλύμπου καὶ κίχησατο⁸ Ἑκτόρα διόν⁹, εἰκνία δεμάς¹⁰ Δηϊφῶβω, ἀδελφῶ τινι τοῦ Ἑκτόρου ὄντι. πείσσασα αὐτὸν μένειν καὶ τὸν Ἀχιλλεὺ μαχεσθαι, ἡ θεὰ εὐθύς ἀπέβη.

ὁ Ἀχιλλεύς ῥαδίως¹¹ ἀπέκτεινε τὸν Ἑκτόρα καὶ τρις τὸ σῶμα αὐτοῦ εἴλξε¹² περὶ τῶν τῆς πόλεως τειχῶν.

[20 marks]



¹ διότι = because

² τρις = three times

³ καίπερ = although (followed by participle in Greek)

⁴ οἰκτιρῶ = I pity

⁵ ὅτι = that

⁶ μοῖρα-ας (f) = fate, destiny

⁷ There are two compounds of βαίνω in this passage. The prefix ἀπ means 'away', the prefix κατ means 'down'

⁸ κίχησατο = met, caught up with

⁹ διος-α-ον = godlike

¹⁰ εἰκνία δεμάς = taking the shape of (followed by a dative)

¹¹ ῥαδίως-α-ον = easy

¹² ἐλκω (aorist: εἴλξα) = I drag