



General Certificate of Secondary Education
June 2013

General Studies

47602/1

Unit 2

Wednesday 19 June 2013

9.00 am to 11.00 am

For this paper you must have:

- an objective test answer sheet for Section A
- a question paper/answer book for Sections B and C (enclosed).

You may use a calculator.

Time allowed

- 2 hours (for Sections A, B and C)

Instructions

- Use black ink or black ball-point pen.

Section A

- Answer **all** questions.
- For each question there are four responses. When you have selected the response which you think is the best answer to a question, mark this response on your answer sheet.
- Mark all responses as instructed on your answer sheet. If you wish to change your answer to a question, follow the instructions on your answer sheet.
- Do all rough work in this book, **not** on your answer sheet.

Section B and Section C

- Answer **all** questions in Section B and **one** question in Section C.
- You must answer the questions in Section B and Section C in the spaces provided in the enclosed question paper/answer book. Do not write outside the box around each page or on blank pages.
- At the end of the examination, make sure you hand in **both** your Section A answer sheet **and** your Sections B and C question paper/answer book.

Information

- The maximum mark for this unit is 85.
(There are 30 marks for Section A, 25 marks for Section B and 30 marks for Section C.)
- In Sections B and C you will be assessed for Quality of Written Communication.

Advice

- You are advised to spend up to 40 minutes on Section A and up to 1 hour 20 minutes on Sections B and C.

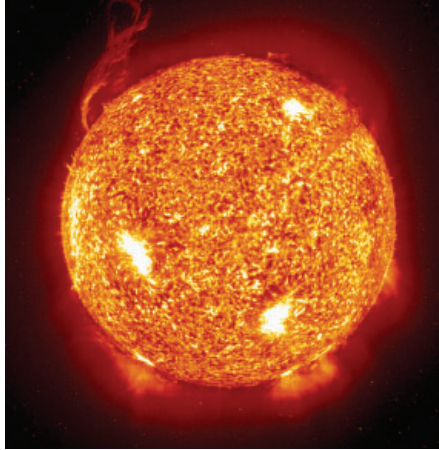
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Section A

Each of Questions **A1** to **A30** is followed by four responses, **A**, **B**, **C** and **D**.
For each question, select the best response and mark its letter on the answer sheet.

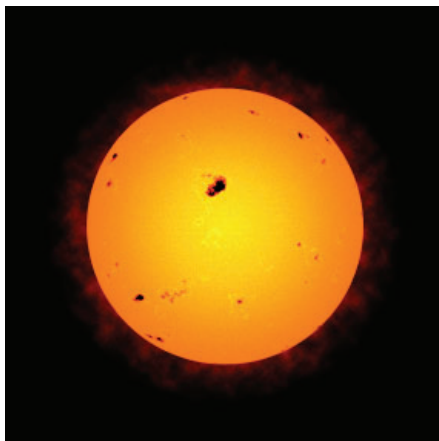
Questions A1 and A2

A1 The photograph below shows



- A** the centre of the Sun.
- B** a solar eclipse in progress.
- C** solar flares on the surface of the Sun.
- D** the Sun's gravity pulling on the planets.

A2 The photograph below shows a series of sunspots. These dark spots occur at places on the Sun where its magnetic field is most concentrated.



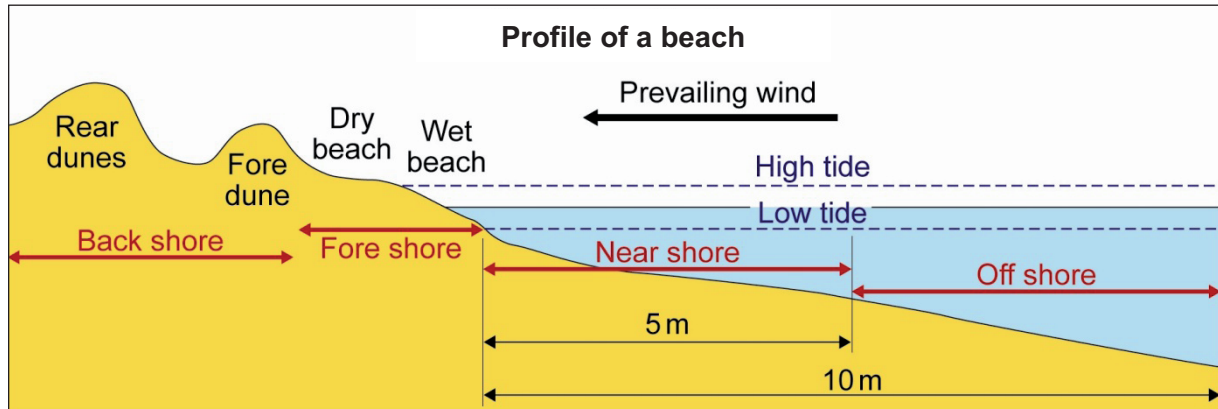
Sunspot activity can affect electronic communications on Earth. This is because

- A** ultraviolet radiation can cause electricity cables to overheat.
- B** charged particles from the Sun can disrupt electrical circuits.
- C** the solar wind can interfere with electricity supplies.
- D** the Sun gets brighter so the Earth gets hotter.

Turn over ►

Questions A3 and A4

Sand dunes are a dynamic landform and are a result of changes in tide, wind and vegetation.



- A3** Using the diagram, which of the following is the main reason for the rear dunes to form behind the fore dunes?
- A** Large storm waves are constantly depositing sand at the rear.
 - B** Fences protect the rear dunes and preserve natural habitats.
 - C** The high tides help to erode the near shore twice a day throughout the whole year.
 - D** Material from the beach and fore dune gets blown onto the rear dune by prevailing winds.
- A4** The main vegetation which grows on sand dunes and helps them to stabilise and grow is called marram grass.



In order to survive the dry, salty and windy coastal environment, marram grass has each of the following special features **except**

- A** a long root system.
- B** bright flowers.
- C** thick leaves, folded to give small surface area.
- D** leaves which grow upwards very fast.

Questions A5 and A6

Some of the causes of global warming are thought to be:

- carbon dioxide
- methane
- chlorofluorocarbons (CFCs)
- soot and particulates.

A5 Methane is a by-product of

- A** car exhausts.
- B** barbeques.
- C** refrigerators and sprays.
- D** cattle farming.

A6 Which of the following is likely to be the cause of the first signs of environmental damage to forests?

- A** acid rain
- B** raised UV radiation levels
- C** the greenhouse effect
- D** increased ozone levels

Turn over for the next question

Turn over ►

Questions A7 and A8

A verb is a word that conveys action or a state of being.

A noun is a person, place, thing or idea.

An adjective describes (modifies) a noun.

An adverb describes (modifies) a verb.

A7 “My uncle lives happily in beautiful countryside.”

In the sentence above, the adjective is

- A** uncle.
- B** lives.
- C** happily.
- D** beautiful.

A8 “My aunt drives dangerously in her large car.”

In the sentence above, the adverb is

- A** aunt.
- B** drives.
- C** dangerously.
- D** large.

Questions A9 and A10

A metaphor is a figure of speech where a term, phrase or image is given to something to which it does **not literally** apply.

- A9** Each of the following is a metaphor **except**
- A** he has the heart of a lion.
 - B** you are the light of my life.
 - C** to succeed you must pull your socks up.
 - D** she read the book from cover to cover.

- A10** The image below shows part of an organ.



The phrase 'pulling all the stops out' comes from organ playing. Its metaphorical meaning is

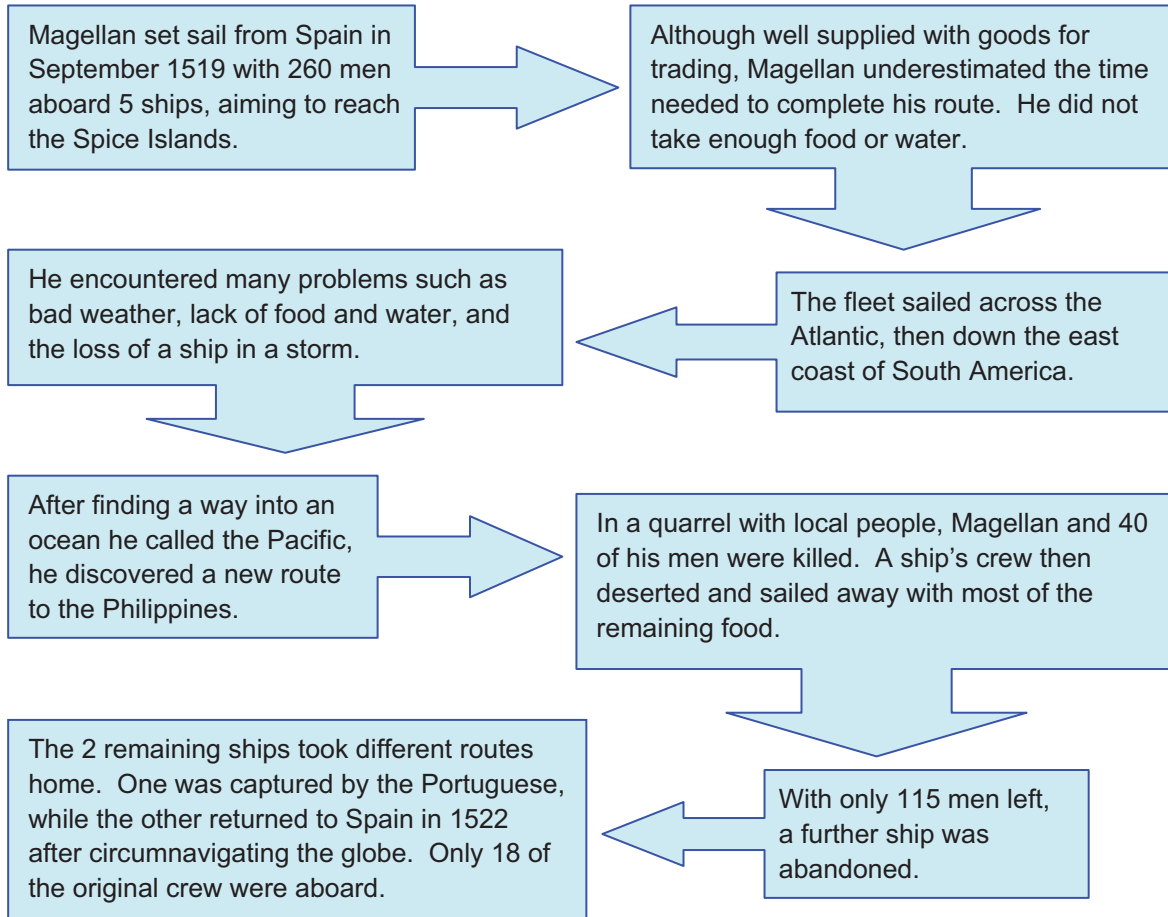
- A** trying as hard as possible to make something happen.
- B** doing little to prevent something from happening.
- C** making as much noise as possible.
- D** carrying on a course of action despite being warned not to.

Turn over for the next question

Turn over ►

Questions A11 and A12

Surprisingly, the 16th century explorer Ferdinand Magellan is referred to as the first explorer to circumnavigate the globe. After studying the simplified flowchart of his voyage, answer the questions below.



A11 The word 'Surprisingly' is used to start the information for this question because

- A** Magellan failed to take sufficient food and water for the voyage.
- B** the vast majority of the men aboard the ships failed to return safely.
- C** Magellan himself died during the voyage and therefore did not complete it.
- D** only one ship out of the original five returned to Spain.

A12 Which of the following famous explorers travelled the furthest on their journeys of discovery?

- A** Neil Armstrong
- B** Captain James Cook
- C** Ferdinand Magellan
- D** Christopher Columbus

Questions A13 and A14**A13**

“I am against religion because it teaches us to be satisfied with not understanding the world.”

(Richard Dawkins)

Dawkins is expressing the view that religion

- 1 provides comfort and reassurance.
- 2 stops people from looking for explanations.
- 3 is a positive force for mankind.
- 4 interferes with rational thought.

Answer

- A if 1 and 4 only are correct.
- B if 2 and 4 only are correct.
- C if 1, 2 and 3 only are correct.
- D if all are correct.

A14

“People sometimes try to score debating points by saying ‘Evolution is only a theory’. That is correct, but it’s important to understand what that means. It is also only a theory that the world goes round the Sun – it’s just a theory for which there is an immense amount of evidence.”

(Richard Dawkins)

The above statement is best summarised as

- A evolution always wins debates.
- B the world does not really go round the Sun.
- C all theories are supported by evidence.
- D evolution is supported by a good deal of evidence.

Turn over for the next question

Turn over ►

Questions A15 and A16

Meditate. Live purely. Be quiet.
Do your work with mastery.
Like the moon, come out from behind the clouds!
Shine.

A15 The quotation above would be most likely to come from the philosophy of

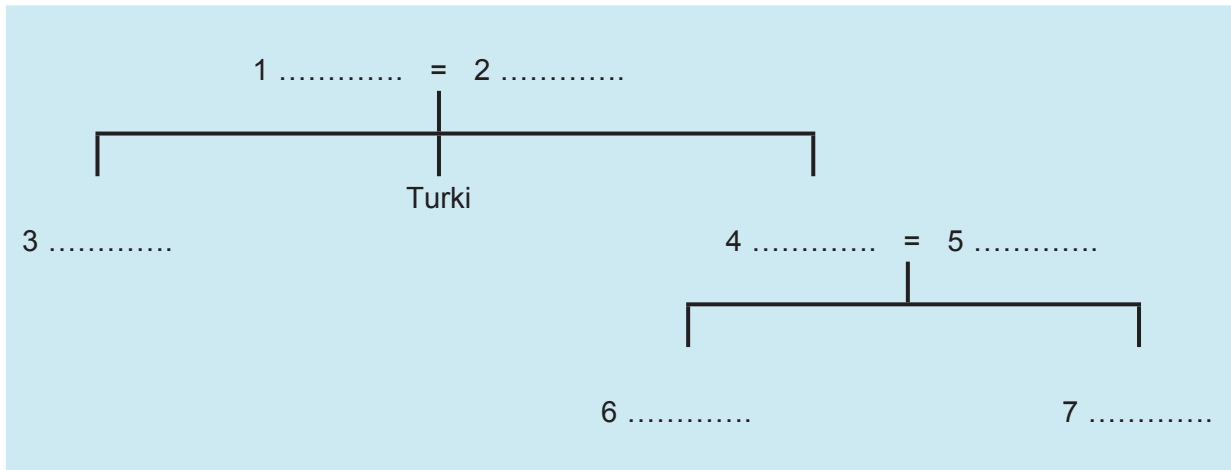
- A** Buddhism.
- B** Christianity.
- C** Hinduism.
- D** Islam.

A16 Which of the following quotations is most similar in tone to the one above?

- A** Rejoice not at your enemy's fall – but don't rush to pick him up either.
- B** Truth is so obscure in these times, and falsehood so established, that unless we love the truth, we cannot know it.
- C** Do not dwell in the past. Do not dream of the future. Concentrate the mind on the present moment. Do the best you can.
- D** Keep ambitions high, in front of God and people. Your credibility will be in proportion to your ambitions.

Questions A17 and A18

“My name is Turki and I am 22 years old. I am engaged to be married to Fatima next year. My family is a typical nuclear family. I live with my father Hamed, my mother Meera, and my brother Salem. Five years ago, my sister Reena got married and left home. She now has two daughters. My brother-in-law is called Ahmed and my two little nieces are Alia and Noora.”



A17 Which numbers in the family tree would represent Salem and Noora?

- A** 2 and 5
- B** 5 and 7
- C** 4 and 6
- D** 3 and 7

A18 The family shown above is described as ‘nuclear’ because it

- A** consists of parents and children living together.
- B** argues a great deal.
- C** has a large number of members.
- D** is dysfunctional.

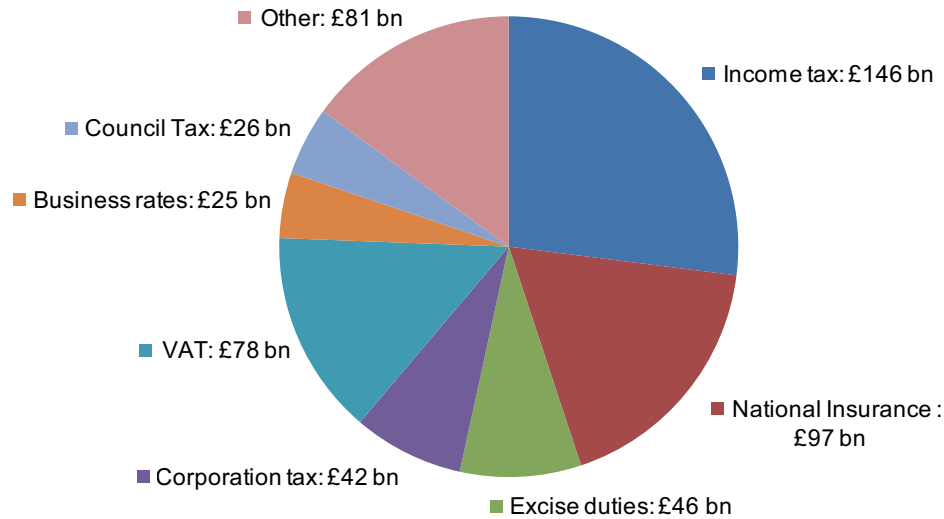
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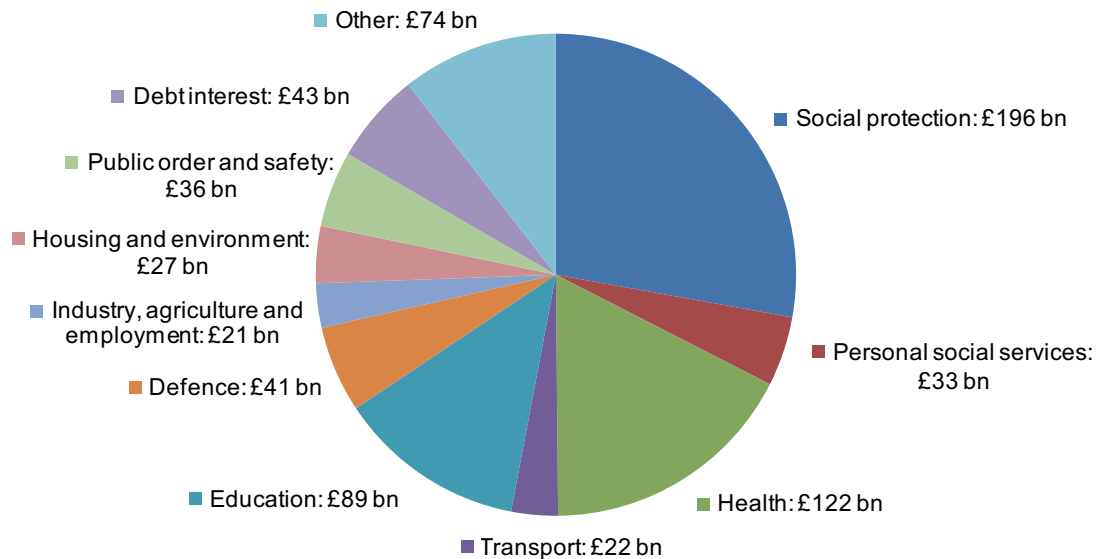
Questions A19 and A20

Government Finance, 2010/11

Total income: £541 billion



Total spending: £704 billion



A19 The overall figures in the two pie charts show

- A** a government profit.
- B** a government deficit.
- C** all Housing and Environment costs can be paid from the Council Tax.
- D** Defence costs will continue to rise for the foreseeable future.

A20 The amount of money raised by VAT contributes approximately how much to the overall amount the government collects?

- A** 7%
- B** 14%
- C** 25%
- D** 78%

Questions A21 and A22

Your Body Mass Index (BMI) is calculated by the following formula:

$$\frac{\text{Mass (in kilogrammes)}}{\text{Height}^2 \text{ (in metres)}}$$

- a BMI of 15 – 20 means that you are underweight
- a BMI of 20 – 25 means that you are a healthy weight
- a BMI of 25 – 30 means that you are overweight
- a BMI of 30 + means that you are obese

A21 Joseph has a BMI of 32 and he is 2 metres tall. What is his mass?

- A** 75 kilogrammes
- B** 105 kilogrammes
- C** 128 kilogrammes
- D** 182 kilogrammes

A22 Anna is 1.8 metres tall and her mass is 78 kilogrammes. What BMI category does she fit?

- A** underweight
- B** healthy weight
- C** overweight
- D** obese

Turn over for the next question

Turn over ►

Questions A23 and A24

Amnesty International's mission is to undertake research and action focused on preventing and ending grave abuses of the rights to physical and mental integrity, freedom of conscience and expression, and freedom from discrimination, within the context of its work to promote all human rights.

Amnesty International is independent of any government, political ideology, economic interest or religion. It does not support or oppose any government or political system, nor does it support or oppose the views of the victims whose rights it seeks to protect. It is concerned solely with the impartial protection of human rights.

Source: © Amnesty International

A23 Which of the following best sums up the aims of Amnesty International?

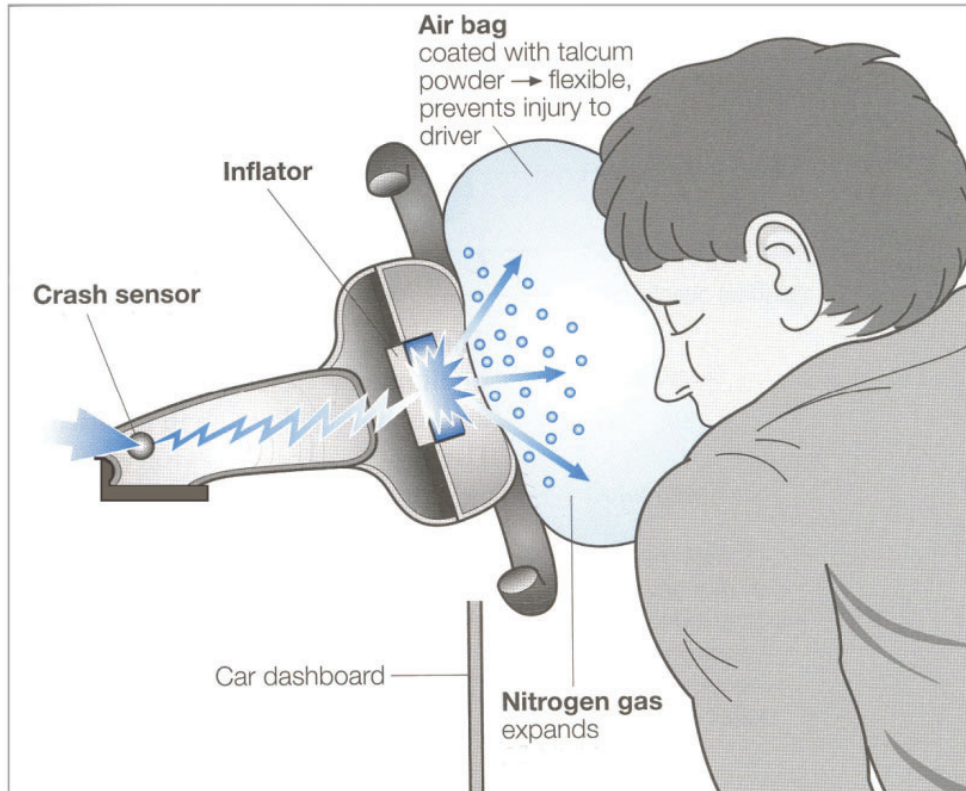
- A** to protect all human rights in all circumstances
- B** to defend the human rights of good people
- C** to support governments which have good human rights records
- D** to promote discrimination against abusers of human rights

A24 Each of the following could reasonably be expected to be a human right **except**

- A** freedom from oppression.
- B** justice.
- C** personal wealth.
- D** pursuit of happiness.

Questions A25 and A26

Below is an illustration of an air bag which has inflated as a result of a collision. The air bag deflates immediately to prevent the driver or passenger from suffocating.



A25 Which of the following are advantages of this device?

- 1 It is easily reusable.
- 2 It spreads the impact over a larger area of the body.
- 3 It prevents injury from the steering wheel and dashboard.

Answer

- A if 1 and 2 only are correct.
- B if 1 and 3 only are correct.
- C if 2 and 3 only are correct.
- D if **all** are correct.

A26 The air bag fabric has a coating of talcum powder so that when it inflates it will

- A soak up blood.
- B minimise friction.
- C purify the air.
- D help deflation.

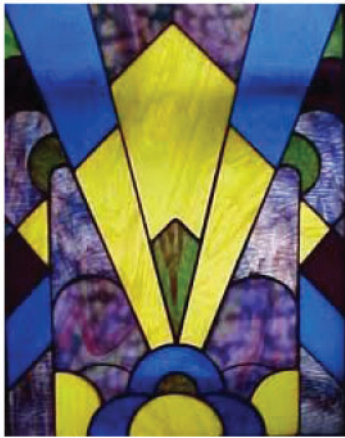
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Questions A27 and A28

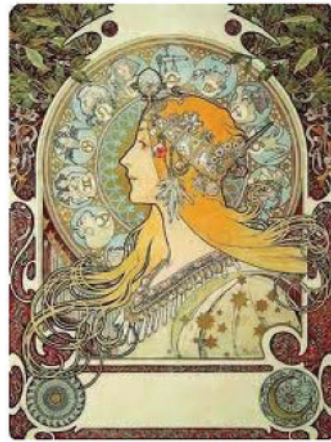
Art Deco is a 20th century style characterised by bold linear and geometric designs.

A27 All of the images below are examples of Art Deco **except**

A



B



C



D



A28 Art Deco design was also used in architecture. Which of the following is an example of this?

A



B



C



D



Questions A29 and A30

Banksy is well-known as a graffiti street artist, producing works such as the images shown below.



A29 Which of the following resources is Banksy most likely to use when producing the above style of work?

- 1 oil paints
- 2 brushes
- 3 spray paints
- 4 stencils

Answer

- A if 1 only is correct.
- B if 1 and 2 only are correct.
- C if 3 and 4 only are correct.
- D if 1, 2 and 3 only are correct.

The picture below shows another piece of work by Banksy.



A30 The tone of the message in this piece of work could be interpreted as

- 1 aggressive.
- 2 sarcastic.
- 3 irreverent.
- 4 humorous.

Answer

- A if 1 only is correct.
- B if 1 and 2 only are correct.
- C if 3 and 4 only are correct.
- D if all are correct.

END OF SECTION A

Turn over for Section B

Turn over ►

Section B

Stimulus Material

Study the following information and answer **all** the questions in Section B which are printed in the enclosed question paper/answer book.

Item A

Do UK parents know what their children are doing online?

New research identifies the gap between parents' perceptions and children's actual online activities. Parents today don't just need to have 'the sex talk' about 'the birds and the bees', now they also have to consider 'the bytes and the bees', according to an annual Online Living Report.

Parents do need to become aware of exactly where their children are online, as the research showed that UK children are spending more than twice as much time on the web as their parents think they are – 43.5 hours per month – as opposed to the 18.8 hours parents estimated. Researchers discovered that parents are on the case, as one in five parents have caught their children viewing something they disapproved of, and reprimanded them for this behaviour.



The survey also revealed that almost a third of UK children are now befriending their parents on Facebook or other social networking sites, suggesting that the internet is closing the generation gap. Some parents are even moving into cyberspace to discuss sensitive issues, with one in six (16%) preferring to chat about touchy subjects online rather than face-to-face:

- 93% agree it's their responsibility to protect children online
- 54% have set parental controls on web usage
- 81% are confident they know what their children are looking at online
- 31% of UK children say their parents don't know what they view online.



"The internet is now our children's playground, and children should absolutely not be prevented from exploring their online environments," said Mo Shapiro, a relationship psychologist. "We are naive if we believe that parents will always know exactly where their children are online or anywhere else... They need ground rules to help them understand what is and isn't safe."

"Having an open discussion with your children is something we really encourage; the internet is a great place to learn and to play, but there have to be boundaries. Kids in the UK are pretty internet savvy, and parents need to keep up. We are encouraged by what we're seeing, but there's still work to be done by parents," said Marian Merritt, an Internet Safety Expert.

Source: article adapted from *UK Kids Pulling the Wool over Parents' Eyes?*, 2009
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Item B

Where do children use the internet?

A comprehensive report of internet usage by young people in the 9–19 year old age range found the following:

- 74% have internet access at home
- 98% have access somewhere
- 24% have broadband at home
- 22% of boys and 19% of girls have internet access in their bedroom
- 24% rely on school as main source of internet access.

At home, it was found that fewer than half of the computers were located in a public place. Children can access the internet via a number of means, with 71% having home access primarily through a computer, 38% via a mobile phone, 17% via a digital television service and 8% via a games console.

Item C

Why do children use the internet?

Most young people access the internet for limited periods of time, on a frequent basis, with 40% being daily users. Below is a list of activities performed by children on the internet ordered by popularity:

- obtain information on things other than school work (94%)
- help with school work (90%)
- send and receive emails (72%)
- play games online (70%)
- send and receive instant messages (55%)
- download music (45%)
- look for information on careers and further education (44%)
- look for information and shop online (40%)
- read the news (26%)
- chat rooms (21%).

Among the 12–19 year olds who go online on a daily basis, 21% admitted to having copied work from the internet and have handed it in as their own.

Source: Items B and C, adapted from article published by © SafeKids 2000–2012, data from a report by the London School of Economics, 2006

Turn over ►

Section C

Answer **one** question, **either** Question 5 **or** Question 6.
Write your answers in the spaces provided on pages 8 to 19 of the other booklet.
There is a total of 30 marks for either question.

EITHER

5 Look at the items below and then answer the following questions.

Item D



Item E



Item F



Item G

Cost of one young offender to the taxpayer per year:

- up to £100 000; for a prison sentence
- £42 000; to send to a Young Offenders' Institution
- £3 000; Community Rehabilitation Order
- £2 000; Community Punishment Order
- £4 000; Community Punishment and Rehabilitation Order
- £8 000; Drug Treatment Order
- £6 000 (6 months); Intensive Supervision and Surveillance Programme (ISSP)

'The cost of youth crime in the UK has risen sharply to £1.2 billion a year (2010); a rise of 20% over four years. Every year an estimated 70 000 school-age offenders enter the youth justice system.' (*The Prince's Trust*)

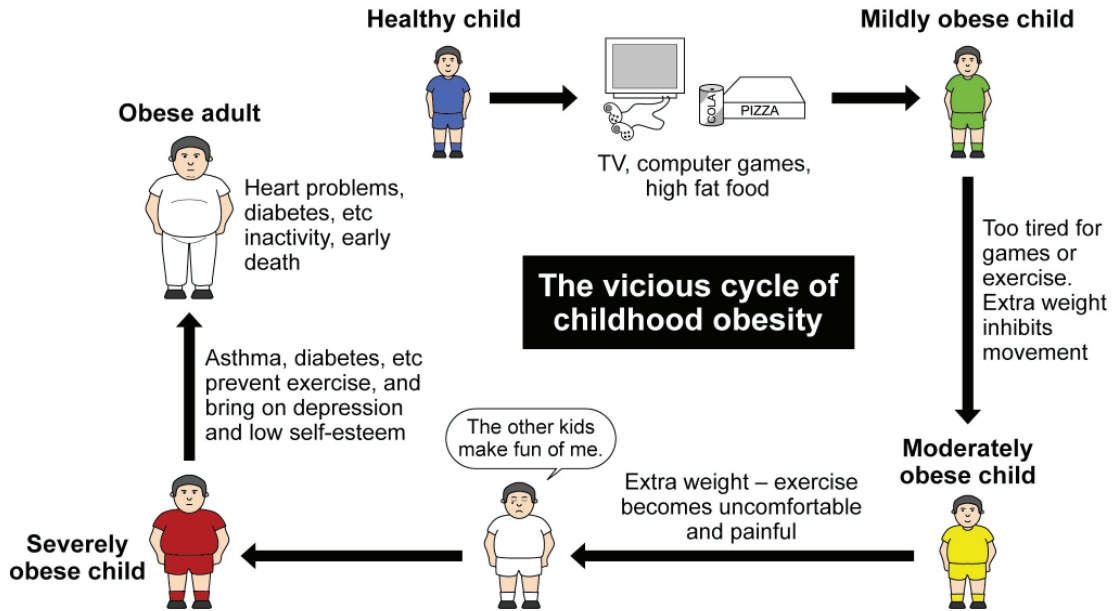
- 5 (a) Identify **four** types of crime that may be committed directly against an individual. (4 marks)
- 5 (b) Identify **and** explain **four** reasons why criminal acts take place. (8 marks)
- 5 (c) Discuss what measures the Government **and** society could take to reduce youth crime within the UK.

In your answer you may wish to consider: education, court sentences and treatment of offenders, as well as ideas of your own. (18 marks)

OR

6 Look at the items below and then answer the following questions.

Item H



Item I



A nationally recognised status for schools

Item J



‘Figures show that childhood obesity within the UK has doubled in the last ten years, with one in four 11–15 year olds being classified as obese.’

- 6 (a) Identify **four** causes of childhood obesity. (4 marks)
- 6 (b) Identify **and** explain **four** possible effects on a child of being obese. (8 marks)
- 6 (c) Discuss what could be done, by both the Government **and** parents, to address the growing problem of childhood obesity within the UK.

In your answer you may wish to consider: education, diet changes and encouragement to exercise, as well as ideas of your own.

(18 marks)

END OF QUESTIONS

There are no questions printed on this page

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- A2: Sun photograph; © Thinkstock
- A4: Marram grass; © Thinkstock
- A13 & 14: Quotes by RICHARD DAWKINS; The Richard Dawkins Foundation for Reason and Science Ltd
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- A23 & 24: Extract from Amnesty International Mission Statement © 2012 Amnesty International
- A28: Image A: Reichstag, Berlin; © 2006 GREG MORGAN/Getty Images
Image B: St Paul's Cathedral, London; © JOHN HARPER/Getty Images
Image C: Chrysler Building, Manhattan; © JON ARNOLD/Getty Images
Image D: Angkor Wat, Siem Reap; © MATT CHAMPLIN/Getty Images
- A29: Banksy graffiti, Soldier and girl, Palestine; © STEFANO BALDINI/Alamy Ltd
Banksy, Roller rat; permission for use granted from www.pestcontroloffice.com
- A30: Banksy stencil, What are you looking at?; © Thinkstock

Section B

- Item A: Image of boy sitting at home computer; © COLIN GREY, The Image Bank/Getty Images
Image of daughter copying mother working on laptop; © PETER CADE, The Image Bank/Getty Images

Section C

- Item D: Knife amnesty; Copyright © Surrey Police 2011. All rights reserved.
- Item E: Car theft; © PAUL BRADBURY, OJO/Getty Images
- Item F: Young offender institution; © ANDREW AITCHISON /Alamy Ltd
- Item G: Young Offender cost to taxpayer; © CIVITAS Institute for the Study of Civil Society 2010
- Item I: Healthy Schools; Department of Education, © Crown copyright 2011
- Item J: Cooking Bus; Food Standards Agency, © Crown copyright 2011

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