



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education
Advanced Subsidiary Level and Advanced Level

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THINKING SKILLS

9694/03

Paper 3: Problem Solving and Critical Thinking (Advanced)

November 2007

1 hour and 30 minutes

Additional Materials: Answer Booklet/Paper

* 2 3 4 4 4 1 0 4 8 9 4 *

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on the Answer Booklet/Paper in the space provided unless this has been done for you.

Write in dark blue or black pen.

Do not use staples, paper clips, highlighters, glue or correction fluid.

DO NOT WRITE ON ANY BARCODES.

Electronic Calculators should be used.

There are **25** questions on this paper. Answer **all** questions.

For each question there are five possible answers **A, B, C, D** and **E**.

Each question tells you whether to choose **one or two** answers.

Record your choice(s) in the separate Answer Booklet/Paper.

Start each question on a new line.

INFORMATION FOR CANDIDATES

Each question is worth 2 marks. Marks will not be deducted for wrong answers.

This document consists of **29** printed pages and **3** blank pages.



- 1 Read the question then record your **two** choices in the separate answer booklet.

Which **two** of the following are **arguments**?

- A** 200 years ago a French mathematician predicted that there must be a bulge on the far side of the Moon. Researchers believe that the moon used to rotate three times for every two revolutions round the Earth. This rotation pattern would have made a small bulge bigger.
- B** Evidence suggests that responses to bad smells are the same in people around the world while our responses to good smells vary depending on where we grew up. People who make perfume use scientific methods to create successful perfumes.
- C** It is central to scientific thinking that data and evidence are essential to deciding any issue. If a country's leaders ignore evidence in their policy making, young people will find it hard to take science seriously.
- D** Studies suggest that fathers talk to their children less than mothers. However, children develop more advanced language if their fathers use a wide vocabulary when they are small. Fathers should consider how they talk to their children.
- E** Tattooed skin is less sensitive than skin without a tattoo. For example, the tattooed skin on one person's right arm was less sensitive than the unmarked skin on their left arm. Ink needles clearly damage the nerves in the skin.

- 2 Read the question then record your **one** choice in the separate answer booklet.

Critical reading is a big part of understanding argument. Although some of the material you will be very persuasive, do not fall under the spell of the printed word as authority. Very few of your instructors think of the texts they assign as the last word on the subject. Remember that the author of every text has an agenda, something that they want you to believe. Take notes either in the margins or on a separate sheet as you read. Put away that highlighter! Simply highlighting a text is only good for memorizing that text—it does not encourage critical reading. Part of the goal is to put the author's ideas in your own words. Then you can stop thinking of these ideas as facts and start thinking of them as arguments.

When you read, ask yourself questions like “What is the author trying to prove?” and “What is the author assuming I will agree with?” Do you agree with the author? Does the author adequately defend her argument? What kind of proof does she use? Is there something she leaves out that you would put in? Does putting it in hurt her argument? As you get used to reading critically, you will start to see the _____ of other writers, and you can use this skill to improve your own ability to argue.

Which **one** of the following phrases, inserted in the blank space, **most logically completes** the passage?

- A extravagant claims
- B sometimes futile nature
- C sometimes hidden agendas
- D total incompetence
- E wonderful lyrical style

- 3 Read the question then record your **two** choices in the separate answer booklet.

The 37.5 pence Dog Licence was abolished in 1988 in the UK. It should be reintroduced as authorities spend about £30 million per year dealing with stray dogs. A £30 Licence Fee would fund a better, and self-financing, dog warden service. The dogs would also have to be fitted with some form of identification, such as a microchip in the ear. These measures would go a long way to solving the problem of stray, lost or stolen dogs and other dog related nuisances, such as attacks on people. The law on stray dogs would then be enforced better.

Which **two** of the following statements, if true, would most **weaken** the above argument?

- A Dog registration exists in Spain at the town hall but police prosecutions are rare.
- B Inflation over the last 18 years indicates the licence fee should be £57.
- C Taxing dog food at 1 pence per can would raise £30 million per year.
- D There are over one million people in the UK with more than one dog.
- E Wardens, in many areas of life, are more and more hated, seen as simply tax gatherers.

- 4 Read the question then in the separate answer booklet record **both** your choice for part (i) and your choice for part (ii).

All planets are round things which circle a star. The Earth is a round thing that circles a star. Therefore the Earth is a planet.

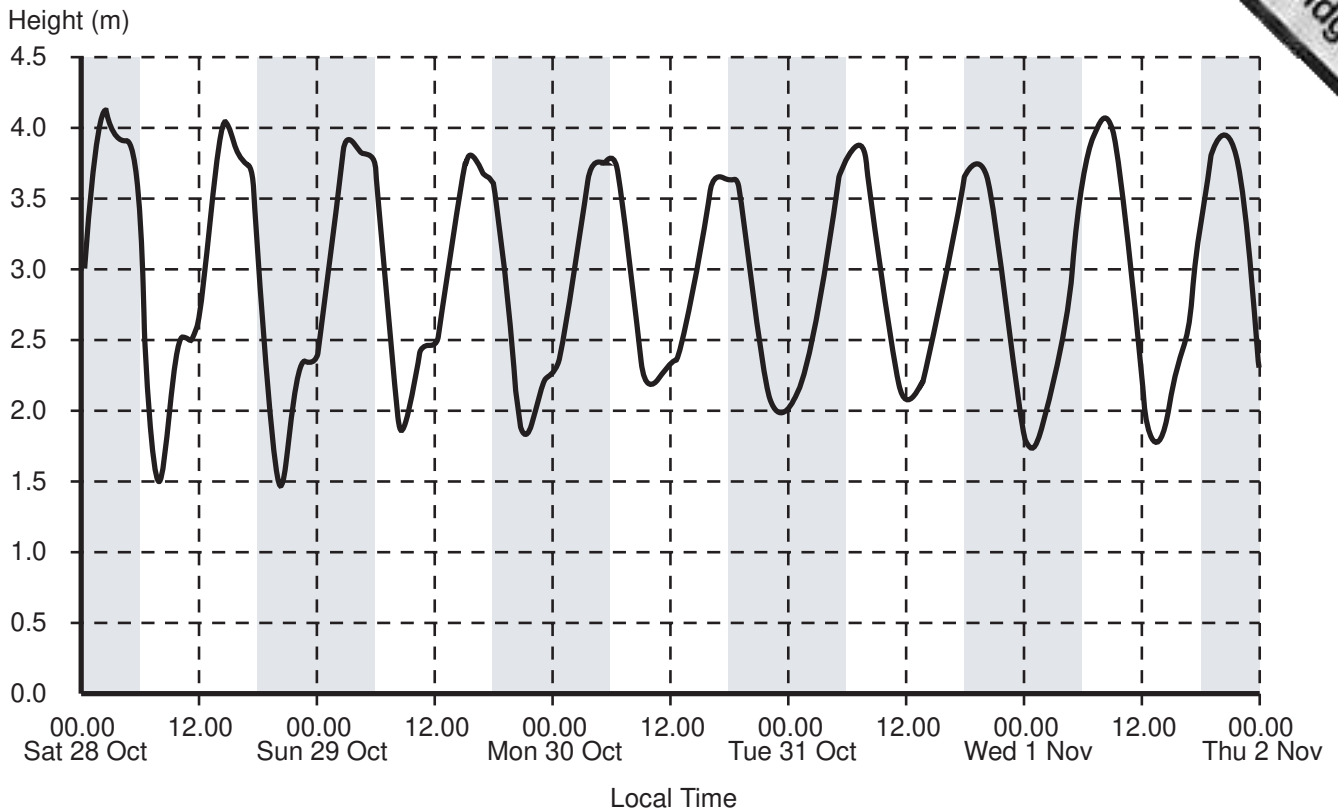
(i) Which of the following best expresses the **flaw** in the above argument?

(ii) Which of the following **challenges a premise** on which the reasoning is based?

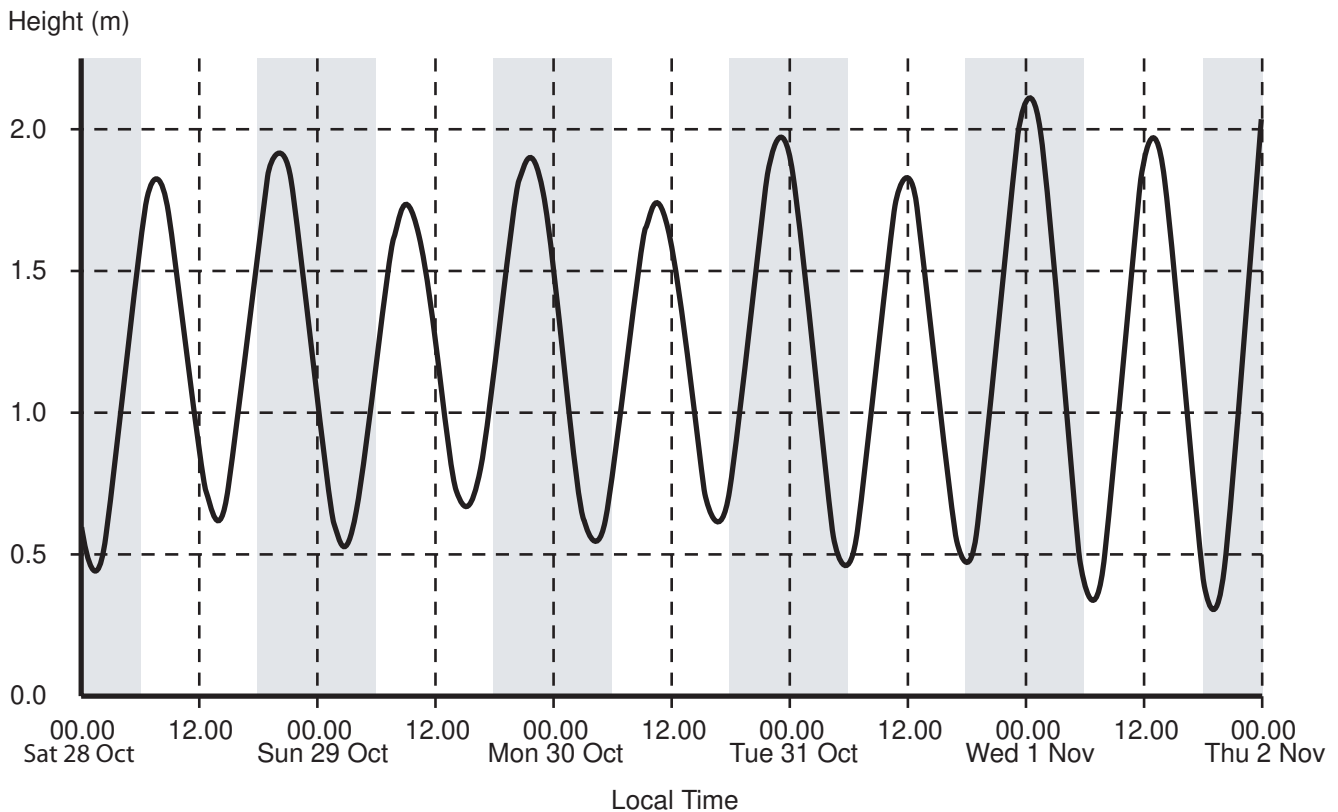
- A It assumes that things that share characteristics are identical.
- B It assumes that what are necessary conditions are also sufficient conditions.
- C It fails to offer evidence to support the statements made.
- D It assumes that the orbits of planets are circular.
- E It gives a partial definition of "planet".

- 5 Read the question then in the separate answer booklet record **both** your choice for part (i) and your choice for part (ii).
- (i) The water is 2.1m high in Tambau, Brazil at high tide on Wednesday 1 November. Approximately how high is the tide at the same moment in Redbridge, England?
- A 1.5m
- B 1.75m
- C 2.5m
- D 3m
- E 4m
- (ii) Which **one** of the following can be concluded from the graphs?
- A A greater volume of water moves through the port of Redbridge than through Tambau.
- B High water levels around high tide do not always last as long in Tambau as in Redbridge.
- C It is impossible to take a boat in or out of Tambau at low tide.
- D Redbridge always has a greater difference between high water and low water than Tambau.
- E The longer nights in Redbridge affect the pattern of the tides.

Redbridge, England. Port predictions (Standard Local Time) are equal to UTC (Universal Time; the standard time common to every place in the world.).



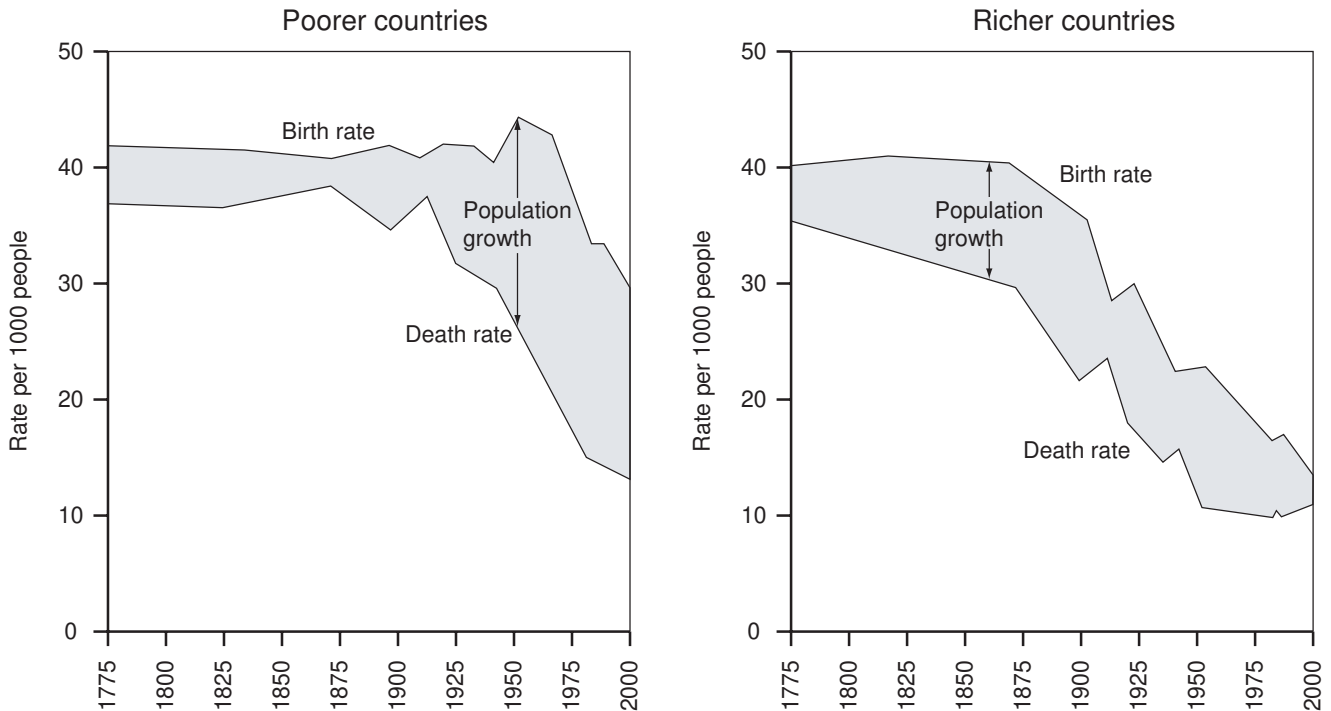
Tambau, Brazil. Port predictions (Standard Local Times are 3 hours behind UTC).



- 6 Read the question then record your **two** choices in the separate answer booklet.

Consider the following pair of graphs. Both graphs have the same scales on their horizontal and vertical axes. The birth rate is the number of live births per 1000 of the population, per year. The death rate is the number of deaths per 1000 of the population per year.

Population Growth



Which **two** of the following statements **cannot** be concluded from the above information?

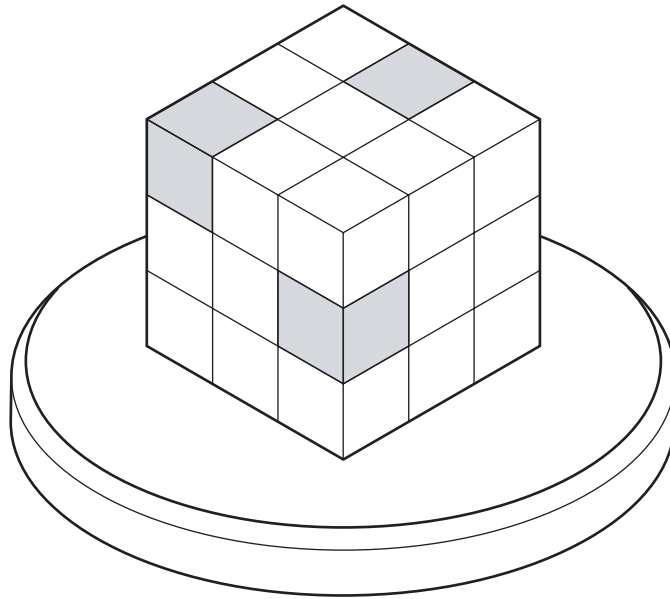
- A No significant medical advances in richer countries which reduce the death rate have been made since 1950.
- B The death rate in poorer countries has been in a state of continual decline since around the time of the First World War (1914-18).
- C The richer countries were closer to a state of 'natural decrease' (when the death rate exceeds the birth rate) in 2000 than the poorer countries were in 1775.
- D The graphs shown may distort the effect of poorer countries on the global population boom since they only show proportionate increase, not absolute increase.
- E The rate of 'natural increase' has decreased in poorer countries between 1950 and 2000.

- 7 Read the question then in the separate answer booklet record **both** your choice for part (i) and your choice for part (ii).

The value of a chat room network depends upon the number of people in the network. In a particular network each member values the network at \$1 per month per other member. Thus if there were 10 members each of the 10 members would value the network at \$9 per month and the total value of the network would be \$90. In fact, the network has more than 10 members. Two new people joined the network yesterday and the total monthly value of the network rose by \$202.

- (i) Which one of the following was the number of members **before** the two new people joined?
- A 48
 - B 50
 - C 52
 - D 100
 - E 102
- (ii) Which one of the following was the total monthly value of the network **before** the two new people joined?
- A \$2 450
 - B \$2 550
 - C \$9 900
 - D \$10 100
 - E \$10 302

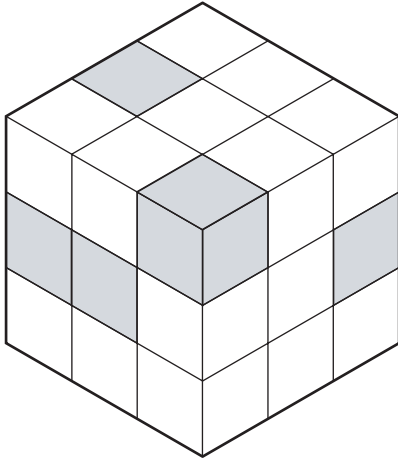
- 8 Read the question then record your **two** choices in the separate answer booklet.



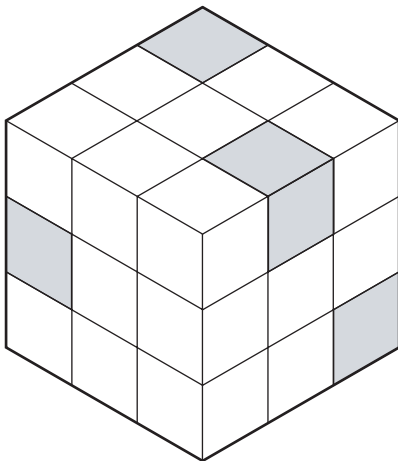
This is a work of art entitled “pieces of eight” that is on show on a rotating table at the Browza art gallery. It is a cube made up of 27 smaller cubes. 19 of the cubes are plastic, but the other 8 are made of gold. (Gold cubes are shown shaded.)

Which **two** of the following could **not** be the appearance of this exhibit after rotation?

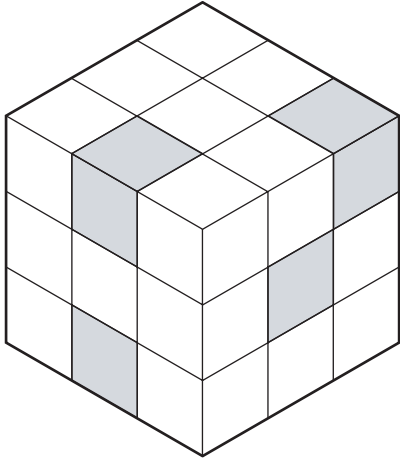
A



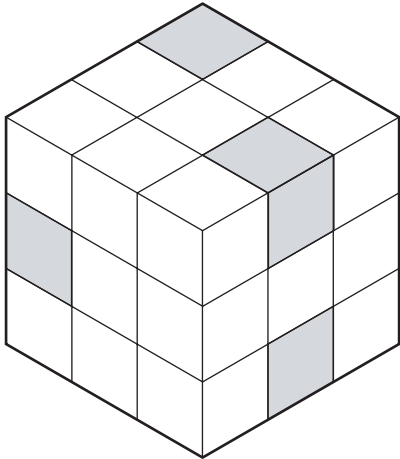
B



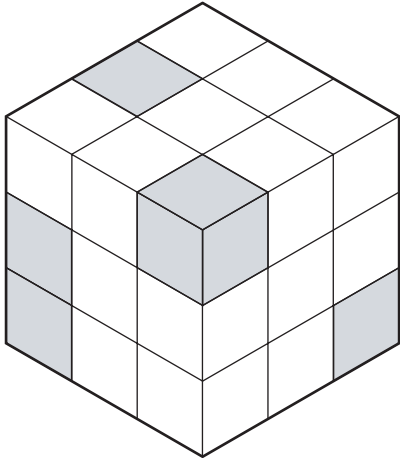
C



D



E



- 9 Read the question then in the separate answer booklet record **both** your choice for part (i) and your choice for part (ii).

The 6-digit passcode for my online banking account is easy for me to remember; it is the only 6-digit number that can be written in the form $xxx\ xxx$ as two square numbers and in the form $xx\ xx\ xx$ as three different prime numbers.

Note: The 3-digit square numbers are:

100	196	324	484	676	900
121	225	361	529	729	961
144	256	400	576	784	
169	289	441	625	841	

When I logged in today I was asked to enter the 3rd and 5th digits of my passcode.

- (i) What is the 3rd digit of my passcode?

- A 1
- B 4
- C 5
- D 6
- E 9

- (ii) What is the 5th digit of my passcode?

- A 2
- B 4
- C 6
- D 7
- E 8

- 10 Read the question then in the separate answer booklet record **both** your choice for part (i) and your choice for part (ii).

Psychologists persuaded a fast food chain to allow an experiment in two of its branches. In both branches customers could choose between a \$0.80 "regular" 40cl and \$1.20 "large" 60cl drink to have with their meal. In both branches 50% of customers chose "regular" and 50% chose "large".

In Branch P the psychologists introduced an additional \$1.50 "jumbo" 80cl drink as an extra choice. Surprisingly, a negligible number of customers chose "jumbo" but only 25% chose "regular" while 75% chose "large".

In Branch Q, a \$0.70 "small" 25cl drink was introduced so that "regular" became the middle sized drink. No customers chose the "small" drink but 80% chose "regular" and only 20% chose "large", an even stronger movement towards the middle sized choice than happened in Branch P.

- (i) Which one of the following statements is correct?
- A In both P and Q the percentage change in the average size of a drink was greater than the percentage change in the average price of a drink.
 - B In both P and Q the percentage change in the average size of a drink was less than the percentage change in the average price of a drink.
 - C In P the percentage change in the average size of a drink was greater than the percentage change in the average price of a drink, with the reverse being correct in Q.
 - D The average size of drink and the average price of a drink both rose by 10% in Branch P and both fell by 12% in Q.
 - E The average size of drink and the average price of a drink rose 25% in Branch P and both fell by 30% in Q.
- (ii) Which one of the following is an accurate description of the drinks chosen in P and Q after the introduction of the extra choices?
- A The average size of drink was 11% higher in P than Q.
 - B The average size of drink was 20% higher in P than Q.
 - C The average size of drink was 22% higher in P than Q.
 - D The average size of drink was 25% higher in P than Q.
 - E The average size of drink was 55% higher in P than Q.

11 Read the question then record your **two** choices in the separate answer booklet.

In Sweden a new product is available to help those who want to stop smoking. It is 'sucking tobacco', and comes in a pouch that is placed between the lip and the gums. It differs from nicotine patches, which are also effective in helping people to stop smoking, in that people do not get enjoyment from using it. It is not completely without health risks, since it can raise the blood pressure of users, and high blood pressure can cause strokes. Despite this, sucking tobacco should be made available in other countries in order to minimise ill health caused by tobacco use. Many Swedish men now use it instead of smoking. Compared with other European countries, Sweden has the lowest percentage of male smokers and also the lowest rate of lung cancer amongst men.

Which **two** of the following statements are **assumptions** upon which the above argument depends?

- A A rise in blood pressure is not particularly dangerous to health.
- B Smokers are more likely to die from lung cancer than to die from strokes.
- C The availability of 'sucking tobacco' will increase the numbers of those trying to stop smoking.
- D The use of nicotine patches is less risky to health than the use of 'sucking tobacco'.
- E Sucking tobacco will not become highly popular among non-smokers.

12 Read the question then record your **one** choice in the separate answer booklet.

Dark tourism – the tourism of sites of tragedy – may be a recent growth area for the industry but it's not a new phenomenon. As far back as the Dark Ages, pilgrims were travelling to tombs and sites of religious martyrdom.

But why are sites so popular? Our motivations are murky and difficult to unravel: a mix of reverence, voyeurism and maybe even the thrill of coming into close proximity with death.

The difference between what is acceptable and unacceptable as a tourist attraction is only a matter of chronological distance. Walking tours of Jack the Ripper's London are enduringly popular. The world he inhabited is distant enough from our own for his exploits to be deemed entertaining. A Yorkshire Ripper trail would be seen as highly inappropriate by most people.

The coverage of these diverse sites is often selective, motivated by the need to increase visitation and revenue rather than presenting an undistorted view of history. 'Dark tourism' sites are important testaments to the consistent failure of humanity to temper our worst excesses and, managed well, they can help us to learn from the darkest elements of our past. But we have to guard against the voyeuristic and exploitative streak that is evident at so many of them.

The above **argument could be summarised** as follows:

- A All humans are voyeurs who are easily exploited.
- B Dark tourism can aid our understanding of human weakness.
- C Dark tourism is unacceptable and should be banned.
- D Dark tourism should be limited to older tragedies.
- E Sites which are unpopular should be advertised more.

13 Read the question then record your **one** choice in the separate answer booklet.

A student of history commented: "It is very unwise for countries to attack their neighbours because history shows that the country which begins a war almost always loses it."

Which **one** of the following is the most likely **explanation** of this observation?

- A Aggressive armies are notorious for committing rape, theft and murder.
- B Soldiers who are defending their homes and families have a stronger motivation to fight than the attackers.
- C The defending country is fighting on home territory and therefore knows the terrain.
- D The history of wars is usually written by the victors.
- E When a country is attacked, the residents can form resistance movements.

- 14 Read the question then record your **one** choice in the separate answer booklet.

A study comparing the results of drug trials was published recently in the Journal of the American Medical Association. Compared with the public sector and charities, profit-making companies were found more likely to report a drug as safe and effective. Scientists confirm that many drugs fail in the early stages of development, yet profit-making companies do not reflect this in their reports of research. This must be because pharmaceutical companies interpret the results in the way most favourable for them and ignore any problems identified by the research. So the general public, and those who volunteer to have drugs tested on them, are not fully informed about the outcome of drug trials funded by such companies.

Which **one** of the following, if true, most **weakens** the above argument?

- A Editors of medical journals are not interested in publishing papers describing therapies that do not work.
- B In the early stages of drug development, trials are more likely to be funded by non-profit organisations.
- C Scientists would risk losing their good reputation if they reported their results in a biased way.
- D The publication of negative results of drug trials can lead to further valuable research.
- E Those who volunteer to have drugs tested on them are often paid for their contribution.

15 Read the question then in the separate answer booklet record **both** your choice for part (i) and your choice for part (ii).

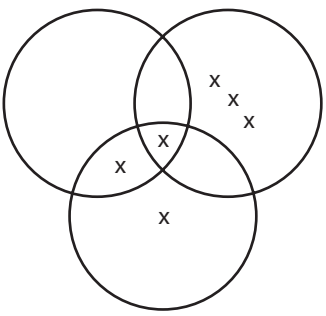
Six of us from Agra Girls' School had a reunion last week, eight years after leaving school. All of us went to university, but only two of us studied in Delhi. Three of us studied medicine and are now doctors. Three of us studied at the University of Jadavpur in Kolkata. One of us at UJK gained a degree in Political Science, one in Marine Engineering and the other person in Food Technology and Biochemical Engineering. Four of us are married, but only one doctor is married, and she met her husband while she was studying for an MD in Community Medicine in Delhi. All of us now have interesting jobs in Delhi.

(i) Which **one** of the following diagrams best represents the information in the passage?

A

Studied in Delhi

Married

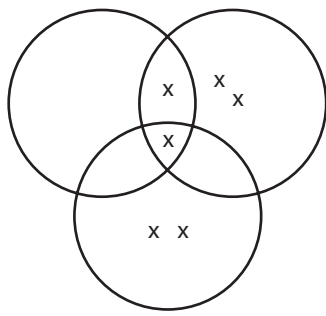


Studied Medicine

B

Studied in Delhi

Married

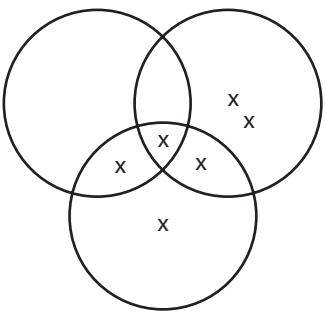


Studied Medicine

C

Studied in Delhi

Married

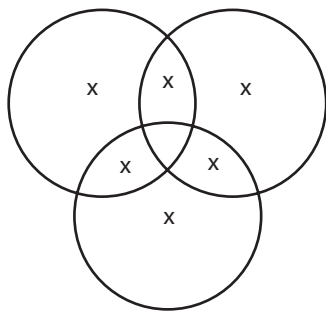


Studied Medicine

D

Studied in Delhi

Married

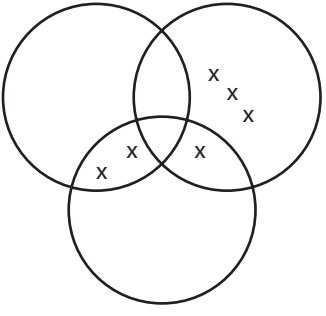


Studied Medicine

E

Studied in Delhi

Married



Studied Medicine

(ii) Which **one** of the following can be concluded?

- A One person is now working as a marine scientist.
- B One person studied an unspecified subject at an unspecified university.
- C One person studied medicine at an unspecified university.
- D Only three of the people have jobs related to their degree subjects.
- E Only two of the people who studied at the University of Jadavpur are now married.

- 16 Read the question then record your **one** choice in the separate answer booklet.

The price of train tickets in some countries is said to relate to 'market forces', but the result is a bizarre set of prices. Sometimes it is cheaper to buy two or more tickets to cover parts of a journey. The latest set of prices on our train line looks as if they are randomly chosen as a joke.

Single					
	to B	to C	to D	to E	to F
from A	\$11	\$16	\$15	\$20	\$27
from B		\$7	\$10	\$11	\$13
from C			\$5	\$6	\$10
from D				\$4	\$9
from E					\$3

Return					
To and from	B	C	D	E	F
A	\$13	\$17	\$17	\$30	\$47
B		\$14	\$15	\$20	\$12
C			\$5	\$4	\$10
D				\$5	\$11
E					\$4

What is the cost of the cheapest combination of tickets to get one way from A to F?

- A \$20
- B \$22
- C \$23
- D \$27
- E \$30

17 Read the question then record your **two** choices in the separate answer booklet.

Hymn books have the hymns numbered in order from 1. A new edition of a hymn book has a selection of the hymns from a previous edition, but those that remain are still in the same order and have a new number. The old number is shown in brackets for anyone with the old book, e.g. the new 6 is the old 8 and this would be shown as 6 (8).

For example, today's list of hymns is

66 (75)
30 (42)
54 (64)
40 (52)
86 (107)

Unfortunately, there must be at least two mistakes in this list.

If there are only two mistakes, and they are in the old numbers, which **two** numbers must be wrong?

- A (42)
- B (52)
- C (64)
- D (75)
- E (107)

- 18 Read the question then in the separate answer booklet record **both** your choice for part (i) and your choice for part (ii).

The shortest stopping distance for a good car on a dry road with good tyres, brakes and an alert driver is given in feet in the following table:

Speed miles per hour	Thinking distance feet	Braking distance feet	Overall stopping distance feet
20	20	20	40
30	30	45	75
40	40	80	120
50	50	125	175
60	60	180	240
70	70	245	315

- (i) What is the overall stopping distance in feet for this type of car travelling at 90 miles per hour?
- A 355
B 405
C 465
D 495
E 595
- (ii) What is the approximate overall stopping distance in feet for this type of car travelling at 117 miles per hour?
- A 526
B 684
C 801
D 837
E 840

- 19 Read the question then in the separate answer booklet record **both** your choice for part (i) and your choice for part (ii).

At this year's Summer Festival the "guess the number of coins in the jar" competition organised by Izzie Shore was very popular. Entrants were asked to write down their guess together with their initials. The game is won by the person whose guess is closest to the correct number. This is the sheet that Izzie had to work through to find the winner when the competition closed.

407	DE	603	EL	411	WS	418	GS	565	FN
494	DE	527	TR	365	PT	611	GS	429	JW
442	DE	495	JW	432	YP	496	RG	562	JW
681	RG	672	HD	329	MV	359	ES		
358	KH	677	HD	528	MV	347	KH		
583	KH	352	MJ	683	MV	437	KH		
364	KH	493	SD	314	RP	425	KH		
436	KH	568	SD	403	TR	452	KH		
561	KH	317	WS	654	MF	657	HD		
615	KH	602	WS	446	MF	686	HD		

Izzie noticed that KH had the correct digits in the wrong order, but nobody guessed correctly. The winner of the competition was exactly 20 away from the correct answer.

- (i) Who was the winner of the competition?

- A JW
- B MF
- C PT
- D RG
- E SD

- (ii) How many guesses were written within 50 of the correct amount?

- A 9
- B 10
- C 11
- D 12
- E 13

- 20 Read the question then record your **one** choice in the separate answer booklet.

The Glanville Count of any number is found by performing the following process: count the number of letters in the English word for the number in question, and then count up the number of letters in the answer, and continue this process until a constant value is reached. The Glanville Count is the number of times this process is done until the sequence settles to a constant value.

For example, to find the Glanville Count of 6: SIX has 3 letters, THREE has 5 letters, FIVE has 4 letters, FOUR has 4 letters and there the sequence remains. Therefore the Glanville Count of 6 is 4 [SIX, THREE, FIVE, FOUR]. Similarly the Glanville Count of 3 is 3, the Glanville Count of 5 is 2, and the Glanville Count of 4 is 1.

What is the largest Glanville Count possible for a number less than or equal to 30?

- A 4
- B 5
- C 6
- D 11
- E 28

- 21 Read the question then in the separate answer booklet record **both** your choice for part (i) and your choice for part (ii).

Following some recent high-profile cases in which elderly hospital patients have suffered dreadfully from neglect, newspapers, radio stations and websites have received a deluge of reports of similar cases. The distress caused to these patients and their friends and relatives is too vast to take in. Story after story tells of indignity, squalor and neglect. Patients with dementia have been left naked in full view of other patients and visitors. Incontinent people have been left wallowing in their own filth, because nurses failed to empty their catheter or colostomy bag. Blind patients have not been informed that their meal has arrived, and uneaten food has been taken away from people who needed help to eat it. Yet alongside these harrowing reports have come letters from nurses expressing the intense frustration they feel at reductions in staffing and the priority given to paperwork, which together prevent them from fulfilling the role which caused them to choose the job in the first place - caring for people in need. Some of them have even left the profession because they could not stand it any longer, thus making staff shortages even worse. The conclusion is unavoidable: the widespread neglect of elderly patients is the direct result of the Government's incompetent handling of the National Health Service.

Which of the following statements from a Government spokesperson would

- (i) most **strengthen** this argument?
- (ii) most **weaken** this argument?
- A** As the average life expectancy has gradually risen over the last half-century, the number of elderly people requiring hospital care has increased.
- B** Expenditure on the National Health Service has vastly increased since the present Government came to power.
- C** Public opinion polls show that most voters do not want their taxes to rise in order to fund increased spending on the Health Service.
- D** Recent advances in medicine and surgery have saved the lives of many seriously ill patients who would previously have died.
- E** The Government's reforms of the Health Service have led to much increased efficiency.

- 22 Read the question then record your **two** choices in the separate answer booklet.

Mental health professionals have known for many years that suicide and so-called “attempted suicide” are quite different phenomena, although that distinction is admittedly obscured slightly by the fact that some people who really want to die fail in their attempts, while others who want to be rescued may not be found in time. Those who work in these fields now speak of “self-harm” in preference to “attempted suicide”. This change of understanding and terminology has led to major changes in treatment. The latest reform in the treatment of self-harming patients is that a large hospital trust has announced that instead of trying to prevent the self-harming behaviour, it will encourage people with a history of self-harm to do it under safe conditions, supervised by a nurse. One patient explained that the act of self-harming meets a psychological need for some people by giving relief when stress builds up to unbearable levels.

Which **two** of the following statements are **assumptions** underlying the above argument?

- A Most people who practise self-harming are not trying to kill themselves.
- B Most people who really want to die succeed in killing themselves.
- C The expression “self-harm” sounds less serious than “attempted suicide”.
- D The occurrence of self-harming is increasing at a rapid rate.
- E To try to prevent patients from self-harming would be prohibitively expensive in staff time.

- 23 Read the question then in the separate answer booklet record **both** your choice for part (i) and your choice for part (ii).

People concerned with the inequality between the developed and undeveloped countries of the world often suggest that people in the former do not need the food they eat. This has led to calls for the amount of food such countries produce to be limited, perhaps through the withdrawal of the subsidies that governments give to farmers in such countries. However all human beings need food. It is unfortunate that some people in the world suffer from malnutrition. However this is not a good reason why countries with sufficient food produce should have to limit their agricultural output. Rather, we should encourage the less developed countries to boost their agricultural output. Equally we do not want a misguided sense of ethics to cause governments to interfere with the existing free market for agricultural products in the developed countries.

- (i) Which **one** of the following is a term which is used **ambiguously** in the above argument?

That is, where is there an *equivocation* in the above argument.

- A developed
- B food
- C need
- D output
- E produce

- (ii) Which **one** of the following points in the argument is **not consistently maintained** in the reasoning?

- A All human beings need food.
- B Governments do not presently interfere with the agricultural free market in developed countries.
- C It is unfortunate that people in some countries suffer from malnutrition.
- D People do not need the food they eat.
- E We should encourage the less developed countries to boost their agricultural output.

24 Read the question then record your **two** choices in the separate answer booklet.

In nineteenth century Europe and America, it was fashionable for the most successful men and women to make pets of wild animals. Big cats (lions, tigers, jaguars, and panthers) in particular were popular. When their popularity waned the creatures were released into the forests. Could the descendants of these trophy animals be still at large? The fact that they are rarely seen is not that surprising – they are nocturnal creatures, and their stealth is capable of evading animals far more alert than humans. How would they feed, without leaving a trace? The mundane fact of the matter is that one small mammal a day is all they would need to survive. A serious case for their continued existence is made by the occasional sheep carcasses found in the upper branches of trees. The discovery of such carcasses is hushed up – farmers value the big cats for controlling vermin, and don't want the media invasion that will inevitably follow. The balance of evidence points to a small number of these lethal animals living on the fringes of modern civilised society.

Which **two** of the following, if true, would most **weaken** the argument?

- A A sheep's carcass found in a tree was put there by local boys as a hoax.
- B There have been no offspring to a pair of big cats living in captivity together in Europe or America.
- C Global warming has made the European environment more suitable for big cats.
- D Big cats normally kill an animal the size of a sheep and feed off it for a few days, rather than small mammals.
- E The skeleton of a big cat is extremely distinctive, and a skeleton of such an animal has never been found in the wild in Europe or America.

- 25 Read the question then in the separate answer booklet record **both** your choice for part (i) and your choice for part (ii).

It used to be thought that genius was born and not made. However, this idea is wrong. It is not natural talent that makes someone a brilliant scientist or a successful musician. Inspiration, teaching, a supportive environment and lots of hard work are much more important. This means that any of us could achieve greatness. So we should not isolate gifted children for special, elite education.

- (i) Even if teaching, support and hard work are necessary to make someone a genius, they may not be sufficient.
- (ii) Being hard working is a genetically determined characteristic people are either born with or not.

For each claim, (i) and (ii), decide whether it is best described as:

- A** A counter argument.
- B** Additional evidence which neither strengthens nor weakens the argument.
- C** Additional evidence which, if true, strengthens the argument.
- D** Additional evidence which, if true, weakens the argument.
- E** A flaw in the argument.

