



Victorian Certificate of Education 2008

General Achievement Test

Friday 13 June 2008

Reading time: 10.00 am to 10.15 am (15 minutes)

Writing time: 10.15 am to 1.15 pm (3 hours)

QUESTION BOOK

Structure of book

<i>Type of questions</i>	<i>Number of questions to be answered</i>	<i>Suggested times (minutes)</i>	<i>Suggested time allocation</i>
Writing Task 1	1	30	10.15 – 10.45
Writing Task 2	1	30	10.45 – 11.15
Multiple-choice questions	70	120	11.15 – 1.15

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners, rulers, and an English and/or bilingual dictionary.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.
- No calculator is allowed in this examination.

Materials supplied

- Question book of 36 pages.
- Answer book for **both** Writing Task 1 and Writing Task 2.
- Answer page for multiple-choice questions on page 15 of the answer book.

Instructions

- Write your **student number** and **student name** on the answer book.
- Write your **student name** on the answer page for multiple-choice questions on page 15 of the answer book.
- Follow the times suggested for each task.
- You may complete tasks in any order and you may return to any task at any time.
- Do not waste time on one particular multiple-choice question. If you find a question very difficult, return to it later.
- Answer all questions.
- All written responses must be in English.

At the end of the test

- You may keep this question book.

Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic devices into the examination room.

WRITING TASK 1

To be answered in the answer book in pen, not pencil.
You are advised to allocate 30 minutes to this task.

Consider the information on these two pages.

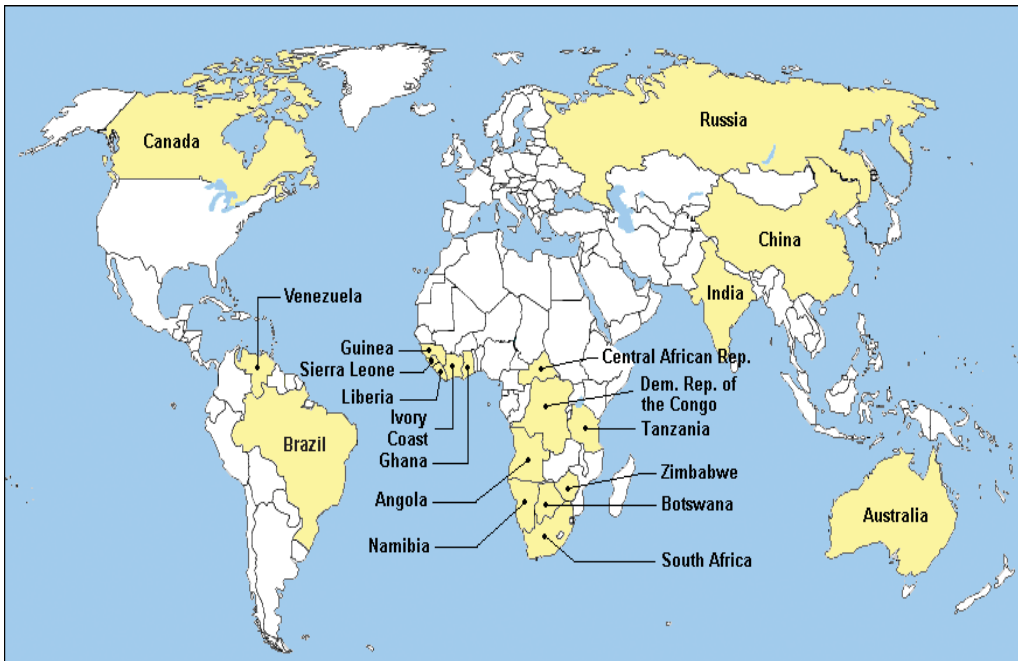
Develop a piece of writing presenting the main information in the material. You should **not** present an argument.

Your piece will be judged on:

- how well you organise and present your understanding of the material,
- your ability to communicate the information effectively, and
- how clearly you express yourself.

Diamond Production 2005

COUNTRY	MASS			VALUE	
	CARATS	%	RANK	\$ MILLION	RANK
Australia	31 000 000	22.1	1	400	8
Botswana	30 412 155	21.7	2	2 300	1
DRC	25 000 000	17.9	3	600	6
Russia	19 000 000	13.6	4	1 640	2
South Africa	12 800 000	9.1	5	950	4
Canada	11 200 000	8.0	6	1 300	3
Angola	5 500 000	3.9	7	900	5
Namibia	1 460 000	1.0	8	450	7
Ghana	950 000	0.7	9	25	13
Brazil	750 000	0.5	10	70	10
Guinea	400 000	0.3	11	75	9
Central African Republic	350 000	0.3	12	55	12
Sierra Leone	300 000	0.2	13	70	11
Tanzania	166 263	0.1	14	20	14
China	150 000	0.1	15	15	15



From: *Diamonds are a girl's best friend*

A kiss on the hand may be quite continental
But diamonds are a girl's best friend.
A kiss may be grand but it won't pay the rental
On your humble flat, or help you at the automat.
Men grow cold as girls grow old
And we all lose our charms in the end.
But square-cut or pear-shaped
These rocks don't lose their shape.
Diamonds are a girl's best friend.

Music by Jules Styne; lyrics by Leo Robin

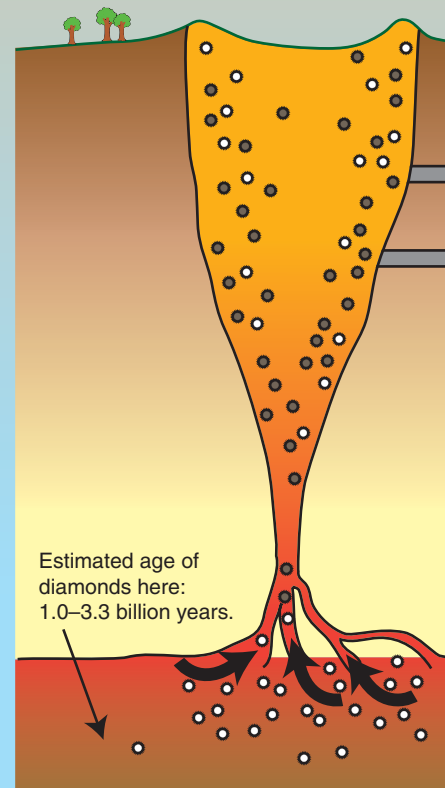


Diagram of a Kimberlite pipe showing how molten lava pushes diamonds towards the surface where mining can occur.

Diamond Uses

Industrial

Social

Precision grinding

To produce high grade finishes on

- Automobile and aeroplane parts
- Electrical radio and scientific instrument components

Hardness

To control quality of

- High speed steel tools
- Gears
- Railway engine components
- Anti-friction bearings

Wire drawing

To make

- Electric cables
- Lamp filaments
- Electric motor windings
- Metal cloth

Rock drilling

To aid

- Mineral prospecting
- Structure testing of buildings
- Quarrying
- Oil well boring

Boart*

To aid cutting and production of

- Hard metals and tools
- Watch and clock parts
- Optical lenses
- Ceramics
- Glass
- Concrete
- Stone

Status symbol

To represent power, privilege and position

- 'Diamond' from Greek word 'adamas' meaning 'invincible'
- Famous Indian Koh-i-Noor diamond (106 carats) now in British crown jewels

Jewellery

To use as ornamentation

- Diamonds judged on the '4 Cs':
Cut: gives beauty and brilliance
Clarity: graded from 'flawless' to 'imperfect'
Colour: 'colour' should approach colourlessness
Carats: diamond weight: 1 carat = $\frac{1}{5}$ gram

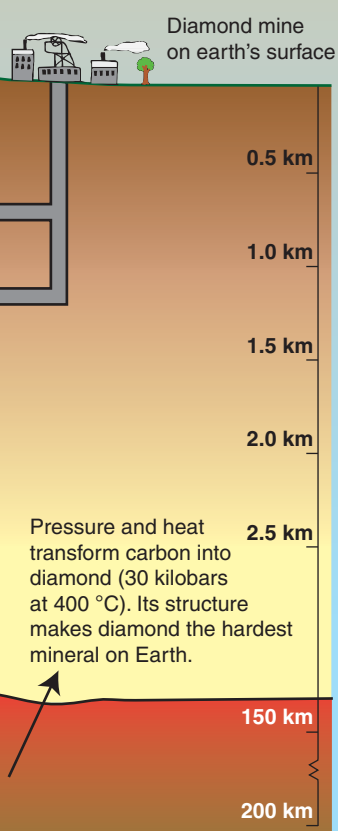
Business

To trade for financial profit

- Marketed heavily by large stores such as Tiffany's
- Advertising slogans used such as 'A diamond is forever'

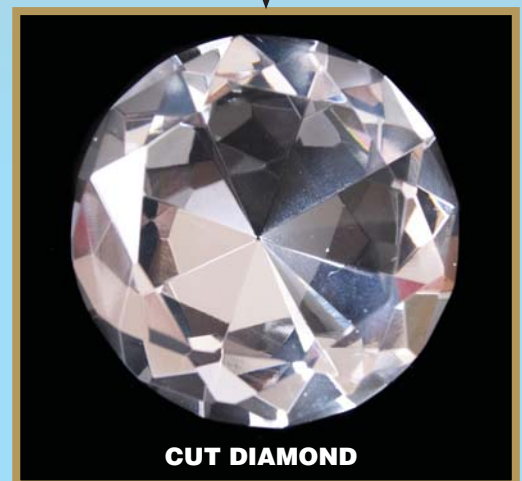
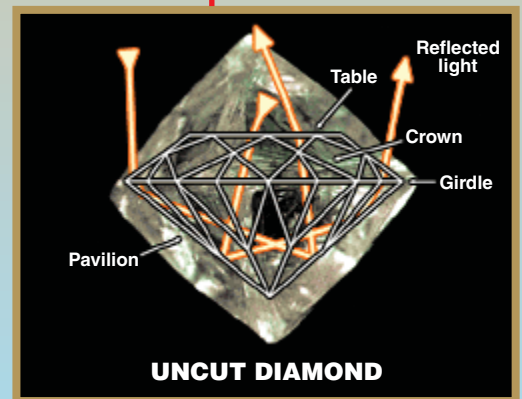


*Boart: bottom-grade diamonds crushed to a powder and used as an abrasive



WHAT'S IN THIS BIT of CARBON ?

- Goal of the adventurer
- Livelihood for the worker
- Fortune for the merchant
- Bauble for the wealthy
- Pledge of love
- Indispensable tool
- Symbol of royalty



WRITING TASK 2

*To be answered in the answer book in pen, not pencil.
You are advised to allocate 30 minutes to this task.*

Consider the statements below.

Based on **one** or **more** of the statements, develop a piece of writing presenting your point of view.

Your piece of writing will be judged on:

- the extent to which you develop your point of view in a reasonable and convincing way, and
- how effectively you express yourself.

Heroes save lives, show great courage, and reach the heights of achievement in many fields. We need heroes in our society. They deserve to be recognised.

Even the finest heroes are only human. It is wrong to expect our heroes to be perfect. They can never live up to the quite unreal expectations we place on them.

The greatest heroes are often ordinary everyday people who have found themselves in extraordinary circumstances. They fight fires, help the homeless, rescue the injured; but they usually go unacknowledged.

We tend to make heroes of the wrong people. Most of our heroes are sportsmen or soldiers. There are not enough female heroes, and few heroes in areas such as art and music.

MULTIPLE-CHOICE QUESTIONS

*Answer this section in the GAT ANSWER BOOK.
Mark your answers on the Multiple-Choice Answer Page.*

You are advised to allocate 2 hours to this task.

Choose the response that is **correct**, or that **best answers the question**, and shade the square on the answer page for multiple-choice questions according to the instructions on that page.

A correct answer is worth 1 mark, an incorrect answer is worth 0 marks. No marks will be given if more than one answer is shown for any question. Marks will **not** be deducted for incorrect answers.

UNIT 1

Question 1

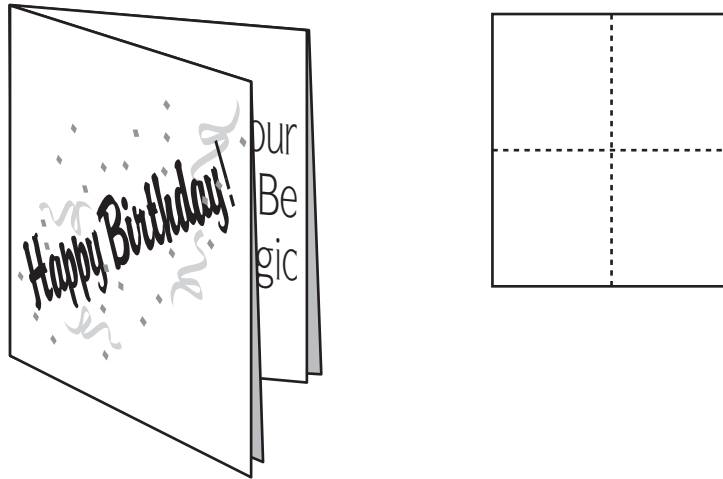


- 1 The point of this cartoon is that
- A people are easily distracted by unimportant things.
 - B it is impossible to predict what people will find interesting.
 - C people are more interested in art of the present than of the past.
 - D people are more fascinated by their conflicts than their creations.

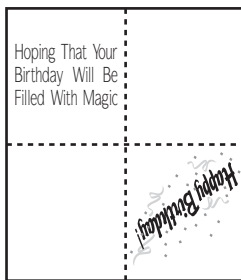
UNIT 2

Question 2

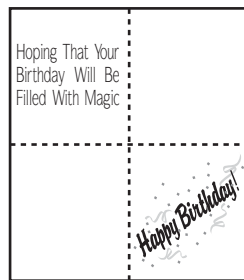
2 The birthday card below was made from one sheet of paper folded into four.



Which of the following correctly shows the arrangement of the words on the unfolded card?



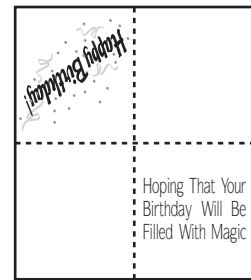
A



B



C

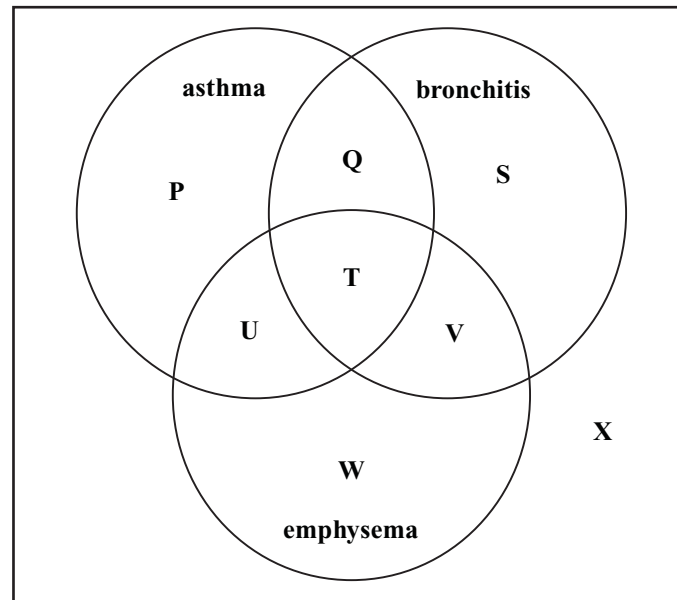


D

UNIT 3

Questions 3 – 6

This diagram represents patients, treated at a medical clinic during one week, who have chronic airway disorders such as asthma, bronchitis, emphysema and other airway disorders.



- 3 A patient who does **not** have asthma or bronchitis or emphysema would be represented in region
- A X.
 - B Q.
 - C T.
 - D V.
- 4 A patient who has asthma may be represented in region
- A P but not S or T.
 - B U but not Q or S.
 - C Q but not T or W.
 - D T but not V or W.

Questions 5 and 6 refer to the following additional information.

During the week the clinic treats 20 patients for asthma, 20 for emphysema, 17 for bronchitis and one for a different airway disorder.

- Five are treated for both asthma and bronchitis but not emphysema.
 - Six are treated for bronchitis and emphysema but not asthma.
 - Three are treated for asthma and emphysema but not bronchitis.
 - At least one is treated for all three of asthma, bronchitis and emphysema.
- 5 Of the patients who had asthma, bronchitis or emphysema, how many were treated for exactly two diseases?
- | | |
|------------|----------|
| A sixteen | C eleven |
| B fourteen | D nine |
- 6 The clinic treats a total of 40 patients.
Of the patients who had asthma, how many also have both bronchitis and emphysema?
- | | |
|---------|--------|
| A two | C four |
| B three | D five |

UNIT 4**Questions 7 – 9**

P , Q , R and S represent positive numbers and $\frac{P}{Q} = \frac{R}{S}$.

- 7 If $P = 3$, $Q = 6$ and $R = 4$, which one of the following is true?
- | | |
|-----------|-----------|
| A $S = 2$ | C $S = 7$ |
| B $S = 5$ | D $S = 8$ |
- 8 If $P = 2R$ and $R = 6S$, which one of the following is true?
- | | |
|------------|-------------|
| A $P = 3S$ | C $P = 8S$ |
| B $P = 4S$ | D $P = 12S$ |
- 9 Which one of the following is true?
- | | |
|----------------------|----------------------|
| A $Q = \frac{PS}{R}$ | C $Q = \frac{PR}{S}$ |
| B $Q = \frac{R}{PS}$ | D $Q = \frac{S}{PR}$ |

UNIT 5

Questions 10 – 13

These diagrams are from an internet site discussing social and environmental processes.

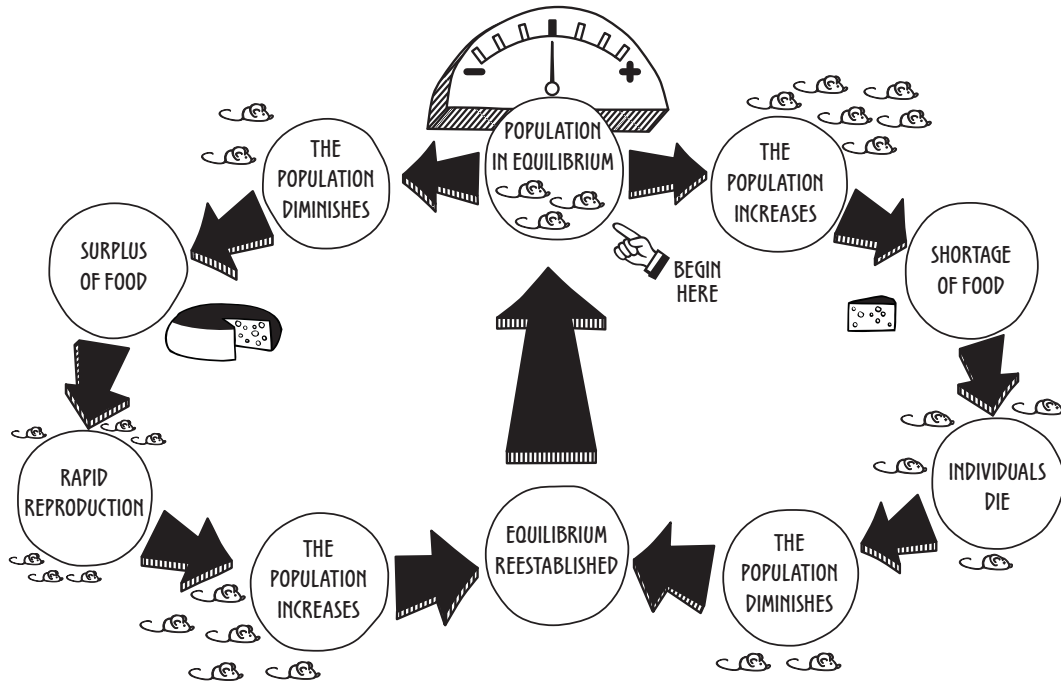


Figure 1: How balance is maintained in animal populations.

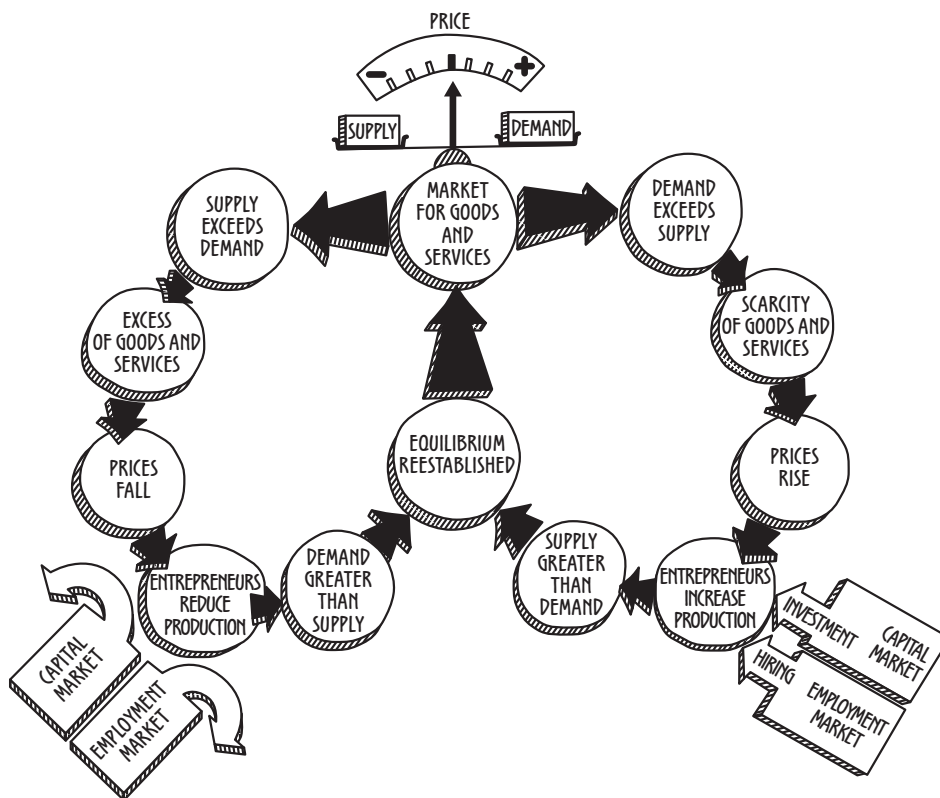


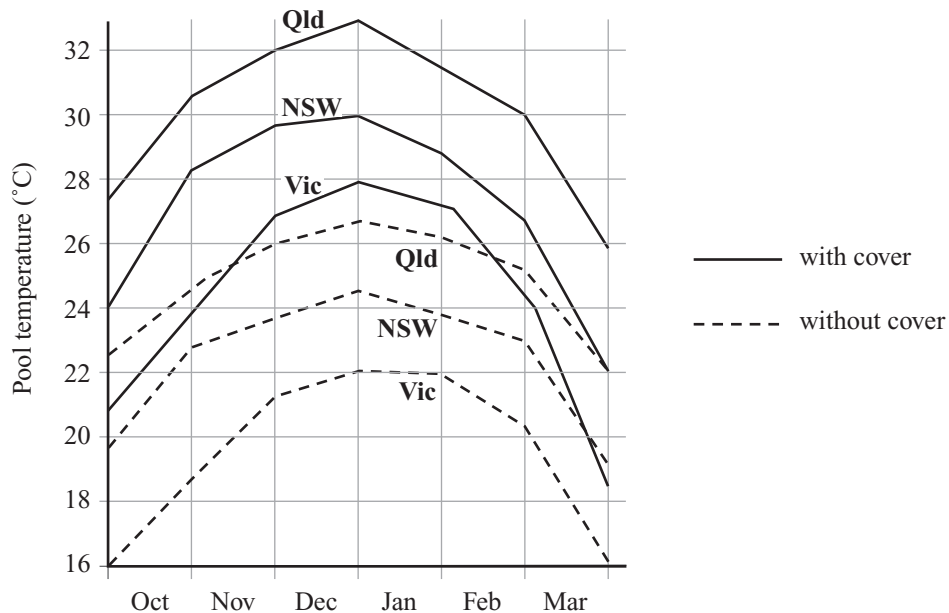
Figure 2: How balance is maintained in economic market forces.

- 10 **Figure 1** suggests that population change in either direction causes
- A irreversible damage to population numbers.
 - B a consequential change in another variable.
 - C a simultaneous change in all potential variables.
 - D an inevitable increase in overall population numbers.
- 11 Which one of the following is demonstrated by **Figure 1**?
- In nature
- A periods of abundance and shortage are transitory.
 - B periods of abundance and shortage are permanent.
 - C all changes in population sizes have known causes.
 - D periods of abundance last longer than periods of shortage.
- 12 Which of the following terms from **Figure 2** best matches 'population increases' in **Figure 1**?
- A prices fall
 - B prices rise
 - C demand exceeds supply
 - D entrepreneurs increase production
- 13 **Figure 1** and **Figure 2** suggest that ecological processes and economic processes are sustained by a type of
- A self-correction.
 - B outside influence.
 - C static inflexibility.
 - D arbitrary variation.

UNIT 6

Questions 14 – 16

The figure shows average pool temperatures for October to March, with and without a pool cover, for New South Wales (NSW), Queensland (Qld) and Victoria (Vic).



Answer Questions 14 – 16 with respect to the average temperatures for the six months referred to in the figure.

- 14** Suppose 22 °C is regarded as the minimum temperature for comfortable pool use. What is the difference between the useable swimming periods for Qld and Vic without a cover?
- A three months
 B four months
 C five months
 D six months
- 15** For which of the following periods is there the smallest range of average pool temperature?
- A 1 October to 31 March in Qld with a cover
 B 1 November to 28 February in NSW with a cover
 C 1 November to 28 February in NSW without a cover
 D 1 December to 31 March in Qld without a cover
- 16** For how many of the six months is a pool in Qld without a cover warmer, on average, than a pool in NSW with a cover?
- A zero
 B two
 C four
 D six

UNIT 7

Questions 17 – 19

Figures of speech are unusual uses of language that aim to create an effect.

The following are some examples of figures of speech.

Antithesis	contradictory or contrasting ideas e.g. <i>The dream turned to nightmare as victory turned to defeat.</i>
Hyperbole	deliberate overstatement e.g. <i>The team was crushed by the defeat.</i>
Litotes	deliberate understatement e.g. <i>She was not a little upset.</i>
Paradox	a seemingly self-contradictory statement but has a kind of truth e.g. <i>The silence was deafening.</i>

17 The following statement:

They were chalk and cheese.

is best described as

- | | |
|--|---|
| <p>A Antithesis.</p> <p>B Hyperbole.</p> | <p>C Litotes.</p> <p>D Paradox.</p> |
|--|---|

18 The following statement:

I can think of a million reasons for refusing your request.

is best described as

- | | |
|--|---|
| <p>A Antithesis.</p> <p>B Hyperbole.</p> | <p>C Litotes.</p> <p>D Paradox.</p> |
|--|---|

19 The following statement:

You find your life by losing it.

is best described as

- | | |
|--|---|
| <p>A Antithesis.</p> <p>B Hyperbole.</p> | <p>C Litotes.</p> <p>D Paradox.</p> |
|--|---|

UNIT 8

Questions 20 – 23

The following passage is taken from a novel set in Cairo, the capital city of Egypt, in the early 1900s. It concerns Khadifa and her beautiful younger sister Aisha.

It was natural that Khadifa should grasp the differences between her and her sister. Neither Khadifa's extraordinary proficiency in running the house and doing embroidery or her indefatigable¹ vigor, which never dimmed or dulled, gained her anything. On the whole, Khadifa felt a jealousy toward Aisha she did not bother to hide, thereby causing the beautiful girl to be upset with her frequently. Fortunately, this natural jealousy did not leave any negative residue deep in her soul. She was content to vent it through the sarcastic sauciness of her tongue. Moreover, she was a girl who, despite the handicaps nature had given her, had a heart full of affection for her family, even though she did not spare them her bitter mockery. Regardless of how long her jealousy lasted, it did not warp her disposition or become hatred or loathing. 5

Although her sarcasm was humorous when aimed at a member of her family, she was a scold of the first degree with regard to their neighbours and acquaintances. Her eyes, like the needle of a compass always attracted to the magnetic pole, lit first on people's imperfections. If their shortcomings were cloaked, she contrived to uncover and enlarge them. Then she applied epithets² to her victims to match their defects. They were usually known by these in the family circle. 10

¹ *indefatigable*: sustained and untiring

² *epithets*: a descriptive word or phrase that becomes fixed 15

20 The narrator implies that Khadifa's jealousy is

- A inevitable.
- B excessive.
- C avoidable.
- D regrettable.

21 Within the context of the passage, Khadifa's 'sarcastic sauciness' (line 7) is best described as

- A a release.
- B a warning.
- C a symptom of intelligence.
- D an indication of her loathing for Aisha.

- 22 Of the ‘epithets’ (line 16) that Khadifa applies to ‘her victims’, the narrator notes that, within the family, these ‘victims’ were then ‘usually known’ (line 17) by these epithets.

This suggests that the family

- A resented outsiders.
 - B was afraid of annoying Khadifa.
 - C saw Khadifa’s epithets as broadly accurate.
 - D was trying to flatter Khadifa by agreeing with her.
- 23 Overall, Khadifa is portrayed as
- A abusive and nasty.
 - B vulnerable and shy.
 - C sullen and resentful.
 - D blunt and perceptive.

UNIT 9

Questions 24 – 28

In a new electronic game, a flat plate is divided into squares that can be lit with coloured light. The example (**Figure 1**) shows a four-square version, as seen from above, with red in one square and yellow in another. The plate is held horizontally and can be tipped on either of the two axes shown. As a result of tipping, colour ‘flows’ into other squares, like paint.

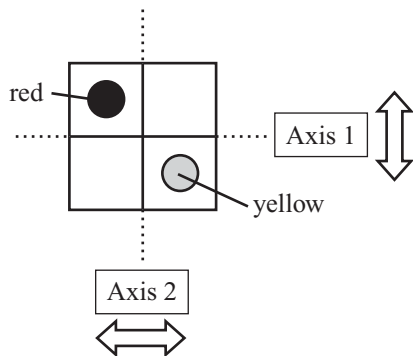


Figure 1

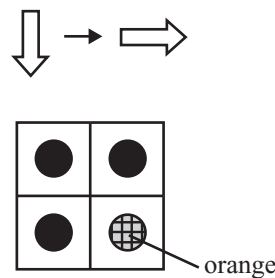


Figure 2



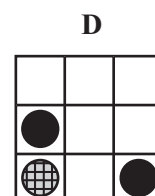
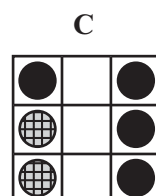
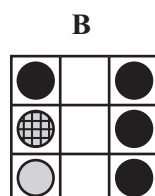
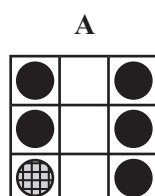
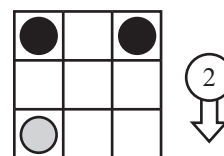
Figure 3

- Starting with colour in one square, tipping the plate for one second in a direction allows flow to an adjacent square so that two squares now have colour in them. Tipping the plate for another second allows flow to a further square, and so on.
- After tipping in one direction, the tray is brought horizontal before tipping in another direction.
- Once a colour is in a square it stays there.
- When two colours are ‘present’ in the same square, a mixed colour is produced (like paint). For example, red and yellow make orange.

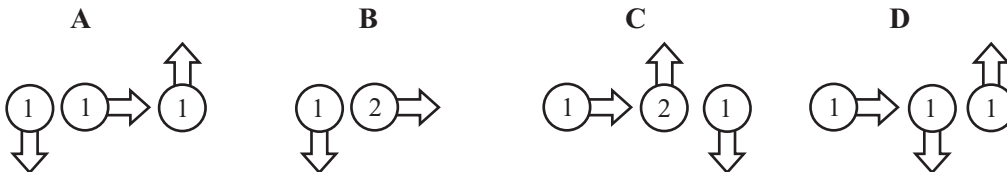
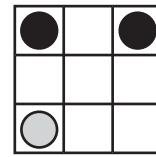
For instance, if the tray in **Figure 1** is tilted for one second each in the two directions indicated in **Figure 2**, the result will be red in three squares and orange in one.

- The number of seconds of tipping can be indicated by a number associated with the direction arrow. **Figure 3**, for example, indicates tipping in the direction shown for two seconds.

24 Starting with this arrangement, what will be the result of the tipping instruction?

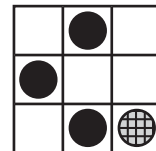


- 25 Starting with this arrangement, which of the following sets of instructions will result in colour in every square?

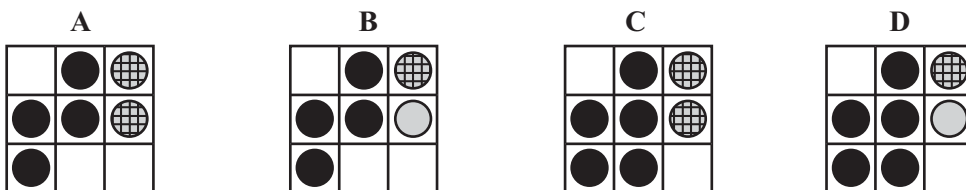
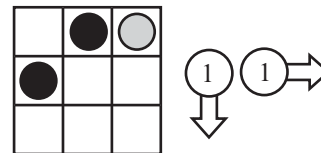


- 26 Starting with this arrangement, what is the fewest one-second tips required to put colour in every square?

- A two
B three
C four
D five

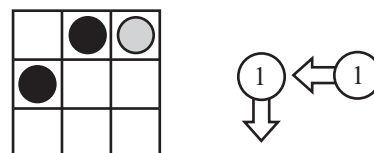


- 27 Starting with this arrangement, what would be the result of the tipping instructions?



- 28 Starting with this arrangement, how will the result differ if the order of the two tipping instructions is reversed?

- A The result will be the same.
B More squares will be coloured.
C There will be more yellow squares.
D There will be more orange squares.



UNIT 10

Questions 29 – 32

The following passage is part of a commentary from a newspaper film guide.

The term ‘blockbuster’ in regard to movies often has negative connotations. Film critics often use the term as a somewhat derogatory label for those overinflated productions that rely more on special effects rather than dialogue or characters, and that seem to be recycled stories that distract rather than engage the audience. They are noisy, unsubtle and unsophisticated productions that, according to these same critics, signal the death of cinema art and mark the triumph of the corporate concerns about how much money the film has made, which is how its success is defined.

5

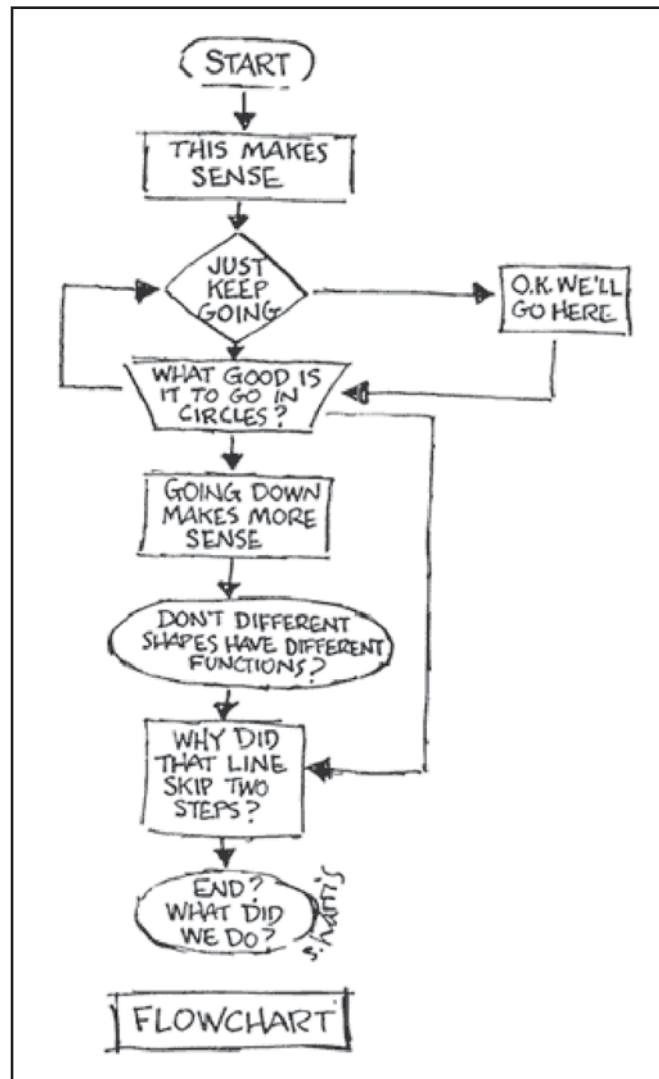
But just because a film is labeled a ‘blockbuster’ doesn’t necessarily mean it is bad. A good blockbuster can sweep you away, taking you places you might never go, showing you things you could never do. It brings you into new worlds, totally mesmerising you, filling you with anxiety, joy, laughter, relief. And it is not just you who experiences this. It is the communal pleasure of the audience that becomes important, the old-fashioned notion that ‘going to the movies’ can still be an exciting experience for us all.

10

- 29 According to the writer, the actual term ‘blockbuster’ is mostly used when describing a film’s
- A artistic merit.
 - B appeal to every generation.
 - C ability to generate controversy.
 - D design and commercial success.
- 30 According to the writer, critics of blockbuster movies dismiss these movies because they are
- A too disturbing.
 - B generally distasteful.
 - C misleading and biased.
 - D unoriginal and superficial.
- 31 The writer views blockbuster movies as
- A potentially gratifying.
 - B fundamentally flawed.
 - C unconventionally artistic.
 - D appropriately denounced.
- 32 Besides escapism, another reason given for the appeal of some blockbuster movies is their
- A widespread influence.
 - B technical simplicity.
 - C unusual themes.
 - D shared impact.

UNIT 11

Question 33



33 In the cartoon above, the cartoonist is most critical of the flowchart's

- A usefulness.
- B accessibility.
- C simplicity.
- D misuse.

UNIT 12

Questions 34 – 37

A five-digit postcode system is used in a country.

- The first digit represents one of the ten areas of the country.
- The second and third digits represent a city within an area.
- The last two digits represent the nearest post office in the city.

The postcode is printed as a barcode on an envelope (**Figure 1**). Each digit in the postcode is represented by five bars: three short bars and two long bars, as shown in **Table 1**.

A check digit is added after the fifth digit. The check digit is produced by finding the sum of the five digits of the postcode and working out the number that must be added to this sum to make the next (higher) number divisible by 10.

For example, consider the postcode 13567. The sum of these numbers is 22. You must add 8 to 22 to get the next number divisible by 10 (i.e. 30), so 8 is the check digit.

A starting and finishing bar are added to the start and finish of the barcode.



Figure 1

Table 1

Digit	Barcode
1	
2	
3	
4	
5	
6	
7	
8	
9	
0	

34 Which of the following postcodes has a check digit of 5?

- A 01782
- B 12457
- C 24621
- D 35689

- 35 Part of this barcode did not print clearly.  A barcode consisting of vertical bars of varying heights. The first bar is the tallest. The second bar is missing, indicated by a dashed box. The remaining bars follow a specific pattern of heights.

What is the maximum number of postcodes it could represent?

- A one
- B two
- C three
- D four

- 36 Part of this barcode did not print clearly.  A barcode consisting of vertical bars of varying heights. The first bar is the tallest. The second bar is missing, indicated by a dashed box. The remaining bars follow a specific pattern of heights.

What is the missing digit?

- A 1
- B 5
- C 6
- D 0

- 37 Part of this barcode did not print clearly.  A barcode consisting of vertical bars of varying heights. The first bar is the tallest. The second bar is missing, indicated by a dashed box. The remaining bars follow a specific pattern of heights.

Of the following, which could be the sum of the two missing digits?

- A five
- B six
- C seven
- D eight

UNIT 13

Questions 38 – 41

Prosperity

monday to friday at the plant
 concrete yards are busy with
 vehicles and movement altho¹ most of what
 moves is machinery
 now and then a human figure crosses the open 5
 space looking small & helpless
 in the sky above the plant not much is blue
 behind the buildings in a grey channel something
 oozes past seeming to have been a river

on friday night when the machines are silent 10
 and the watchman finishes his rounds
 walking away with gun and torch like some
 mistaken supplicant² then only the dark
 finds its way through wire fences
 & sometimes due to atmospheric conditions (for which 15
 the management is not responsible) the wind will rise
 or in the wasteland hours of industrial sunday
 rain might start falling inadvertently as if
 still thinking of a plant as some kind of
 flower 20

Michael Dransfield

¹ *altho*: although

² *supplicant*: someone who is offering prayers

- 38 The description of the human as ‘small & helpless’ (line 6) suggests that the environment described in the poem is
- A somehow fragile.
 - B deserted and lonely.
 - C unsafe and confusing.
 - D almost overwhelming.

- 39 The technique of omitting punctuation in the poem has the effect of emphasising the
- A poet's optimism about his subject matter.
 - B changeable rhythms of the natural world.
 - C changeless monotony of the factory environment.
 - D poet's view that our concerns about our modern world are trivial.
- 40 The use of the word 'plant' in line 19 is an attempt by the poet to
- A focus on the irony of different meanings of the word 'plant'.
 - B stress the similarity of the two meanings of the word 'plant'.
 - C emphasise the power of the natural world over the human world.
 - D reinforce the idea of harmony between the natural world and the human world.
- 41 The title of the poem is designed to
- A offer a summary of the poem.
 - B contrast with the substance of the poem.
 - C echo the subject matter of the poem.
 - D undermine the seriousness of the poem.

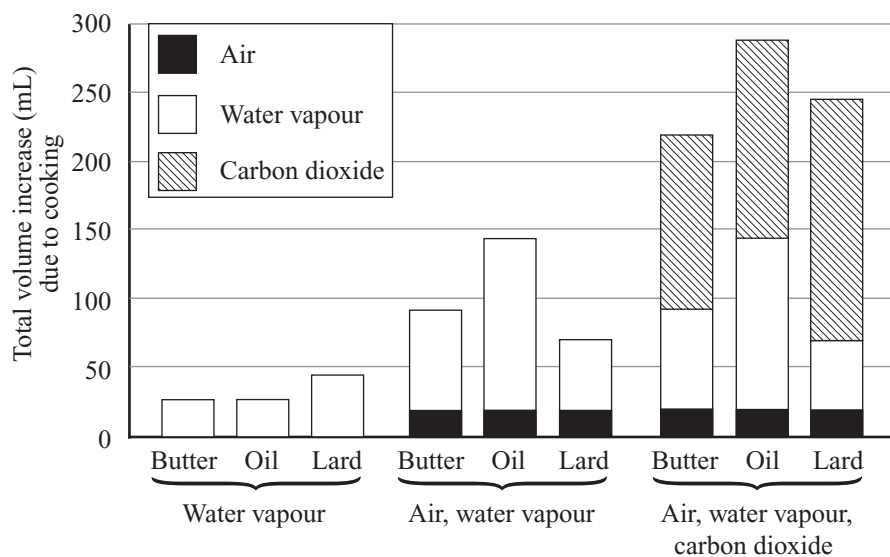
UNIT 14

Questions 42 and 43

Cake mixtures may rise as a result of the formation or enlargement of ‘bubbles’ of water vapour, carbon dioxide or air as the mixture is cooking.

The graph shows the increase in the total volume of cake mixtures, which had equal initial masses, for cakes made with butter, oil or lard. The increase in volume was due to ‘bubbles’ of

- water vapour *or*
- both air and water vapour *or*
- all three of air, water vapour and carbon dioxide.



42 Carbon dioxide had the greatest effect on the change in total volume for cakes made with

- A butter.
- B oil.
- C lard.
- D butter and oil equally.

43 The presence of air appears

- A to increase the effect of water vapour for butter more than for oil.
- B to increase the effect of water vapour for butter more than for lard.
- C to increase the effect of water vapour for lard more than for oil.
- D **not** to change the effect of water vapour.

UNIT 15

Questions 44 – 47

The following is a translation of an inscription from a 14th century church.

Old men who stay behind, do not inflame the young with words of war. The ruin that you risk should be your own, not theirs.

Young men beware; to make you fight they first must make you fear then, out of that, mould hate.

Take arms when all else fails, but mark you this: before the battle's joined, remember what it is to see friends bleed. In the battle's midst, remember peace is both behind you and ahead. Once the battle's won, remember how it is that wars begin.

5

Kings and captains, you who order war, know that your people, left alone, would choose to eat not fight, would choose to love not hate, would choose to sleep not die. Take care what you say to turn them to your will. Tell them that you fight for God, not gain, and know your enemy is saying the same.

10

You who read this, pray for me. I have heard blind fury roar and sow the seeds of future war and I have wept as heroes died.

- 44 In lines 3 and 4, the narrator warns young men about
- A being manipulated.
 - B becoming apathetic.
 - C the effects of battle.
 - D the hazards of training.
- 45 In lines 5 – 8 the narrator is best described as
- A justifying the need for war.
 - B admonishing the participants in war.
 - C preparing the young warrior for victory.
 - D instilling reason even in the midst of war.
- 46 Which one of the following best reflects the comment 'remember peace is both behind you and ahead' (lines 6 and 7)?
- A Peace is long gone, so the battle is futile.
 - B The present destruction is but a temporary state.
 - C The middle of battle is the most confusing time.
 - D Victory will follow so the destruction is worthwhile.
- 47 Lines 9 and 10 present an appeal for
- A action.
 - B compassion.
 - C resolve.
 - D compromise.

UNIT 16**Questions 48 – 52**

The figure shows the ranges of temperature ($^{\circ}\text{C}$), salinity (parts per thousand, ppt) and water density (mg/mL) for the deep water of the Pacific, Indian, Atlantic and Antarctic Oceans.

For example, point **X** represents water in the Pacific Ocean that has a temperature of about 8°C , a salinity of 34.0 ppt and a density of 26.5 mg/mL .

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48 Which ocean has the greatest salinity range?

- A** Antarctic Ocean
- B** Pacific Ocean
- C** Indian Ocean
- D** Atlantic Ocean

- 49 A sample of water has a salinity of 35.0 ppt and a density of 27.0 mg/mL.
Which ocean could it come from?
- A Atlantic Ocean only
 - B Pacific or Indian Oceans only
 - C Indian or Atlantic Oceans only
 - D Pacific, Indian or Atlantic Oceans
- 50 Which one of the following is closest to the temperature range of water in the Pacific Ocean with a density of 26 mg/mL?
- A 11–17 °C
 - B 9–20 °C
 - C 8–16 °C
 - D 1–18 °C
- 51 A salinity that occurs in both the Indian and Atlantic Oceans, but not the Pacific Ocean, is
- A 34.3 ppt.
 - B 35.0 ppt.
 - C 35.7 ppt.
 - D 36.0 ppt.
- 52 Which one of the following statements is best supported by the information provided?
An increase in temperature is associated with
- A an increase in density.
 - B a decrease in density.
 - C an increase in salinity.
 - D a decrease in salinity.

UNIT 17

Questions 53 – 55

The 'Total Product Model' shows different levels considered in the marketing of a product.

- The **generic product level** is the physical product itself.
- The **expected product level** is the combination of goods and services essential to the product.
- The **augmented product level** includes additional goods and services that improve the appeal of the product.
- The **potential product level** includes additional goods and services that provide room for further growth of the product.

Diagram 1 shows different ways of marketing products using the Total Product idea (**Model I** and **Model II**).

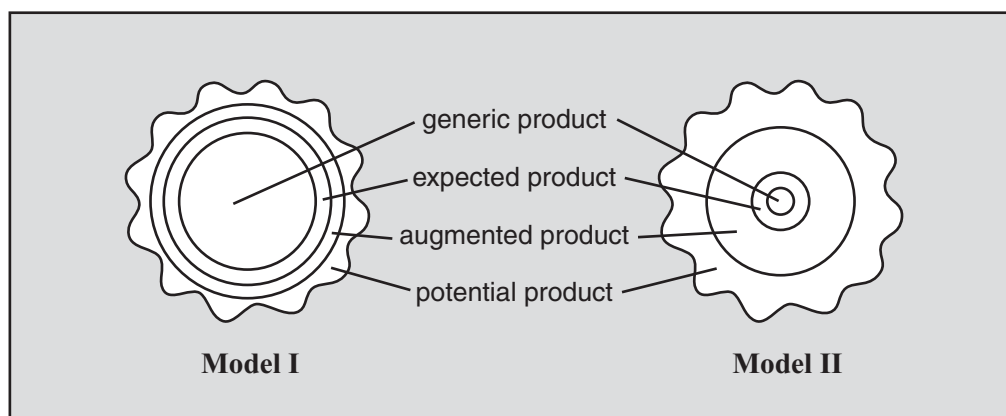


Diagram 1

- 53** A company using **Model I** as its marketing model most likely regards providing extra services associated with the product as
- A** essential.
 - B** irrelevant.
 - C** relevant but not highly significant.
 - D** highly significant but not essential.

Questions 54 and 55 refer to the following additional information.

Company A's motto is 'Little things mean a lot'. Customers who walk into Company A's shop comment that they experience something special. They say that they feel a part of a whole 'brand name' and claim they would never buy from the competing companies.

- 54** The most likely belief of Company A about marketing its products is that the
- A** number of services it offers will have no effect on sales.
 - B** number of products it offers will have no effect on sales.
 - C** more attractive services it offers, the more physical products it will sell.
 - D** more attractive physical products it offers, the more physical products it will sell.
- 55** Company A's marketing strategy is best described as based on
- A** **Model I.**
 - B** **Model II.**
 - C** neither **Model I** nor **Model II.**
 - D** an extreme version of **Model I.**

UNIT 18

Questions 56 – 58

Figure 1 shows the average daily gas usage for a household in two-month periods over a year.

- A two-month period is assumed to be 60 days.
- A megajoule (MJ) is a unit of gas usage.
- The gas charges are shown to the right of the graph.

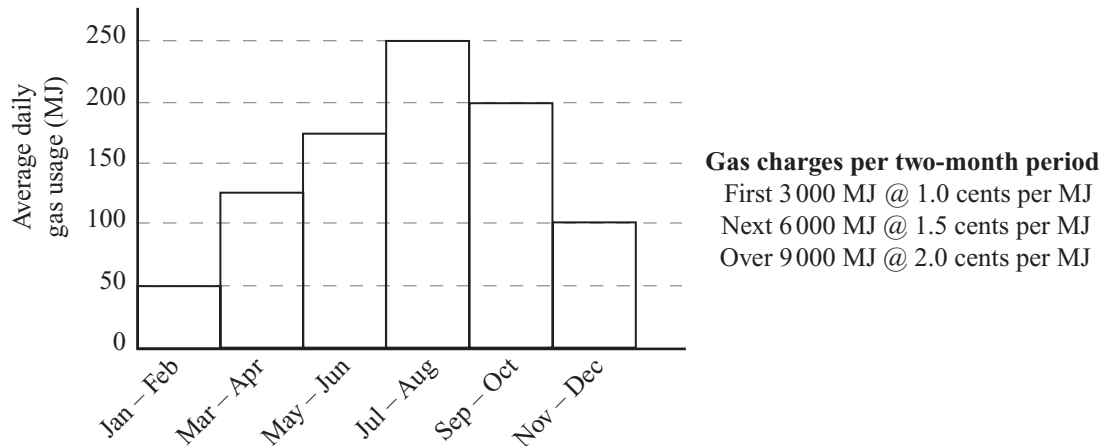


Figure 1

- 56** Consider the two-month periods with greatest and smallest total gas usage. The difference in **total** gas usage between these two periods is closest to
- A 3 000 MJ.
 B 6 000 MJ.
 C 12 000 MJ.
 D 15 000 MJ.
- 57** Which one of the following is closest to the **total** gas usage in September – October?
- A 6 000 MJ
 B 12 000 MJ
 C 18 000 MJ
 D 24 000 MJ
- 58** The **total** cost of the gas used in May – June is closest to
- A \$150.
 B \$165.
 C \$180.
 D \$210.

UNIT 19**Questions 59 – 62**

Questions 59 – 62 are from a debate for and against the topic:

Australian law should be changed to allow criminal trials to be televised.

For each of the questions you are to choose the alternative (**A–D**) that most appropriately describes the relationship of the statement to the topic of the debate.

The statement:

- A** is most likely part of the debate **for** the topic.
- B** is most likely part of the debate **against** the topic.
- C** could possibly be part of the debate **for or against** the topic.
- D** is **not relevant** to either the debate for or against the topic.

59 Justice should not only be done, it should be seen to be done.

60 Justice delayed is justice denied.

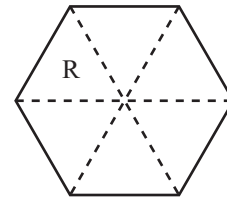
61 Criminal justice is not a variety of soap opera.

62 The presumption of innocence may well be harmed by public assumptions of guilt.

UNIT 20

Questions 63 and 64

A hexagonal spinner for a board game is divided into six triangles, each of a different colour – red, yellow, blue, orange, green and white. Red, R, is already marked on the spinner.



- Orange and yellow are next to each other.
- Red is opposite green, but **not** next to white.

63 Which one of the following must be true?

- A Yellow is next to green.
- B White is opposite yellow.
- C Green cannot be next to white.
- D Blue is next to both red and white.

64 Including red, how many colours can be correctly assigned to their position?

- | | |
|-------|---------|
| A one | C three |
| B two | D four |

UNIT 21

Question 65

There were four contestants in a school's singing competition – Alex, Jason, Lani and Bethany.

The following four statements are all false.

- Lani came first.
- Alex came ahead of Lani.
- Bethany came ahead of Jason.
- Alex came last.

Assume there were no drawn results.

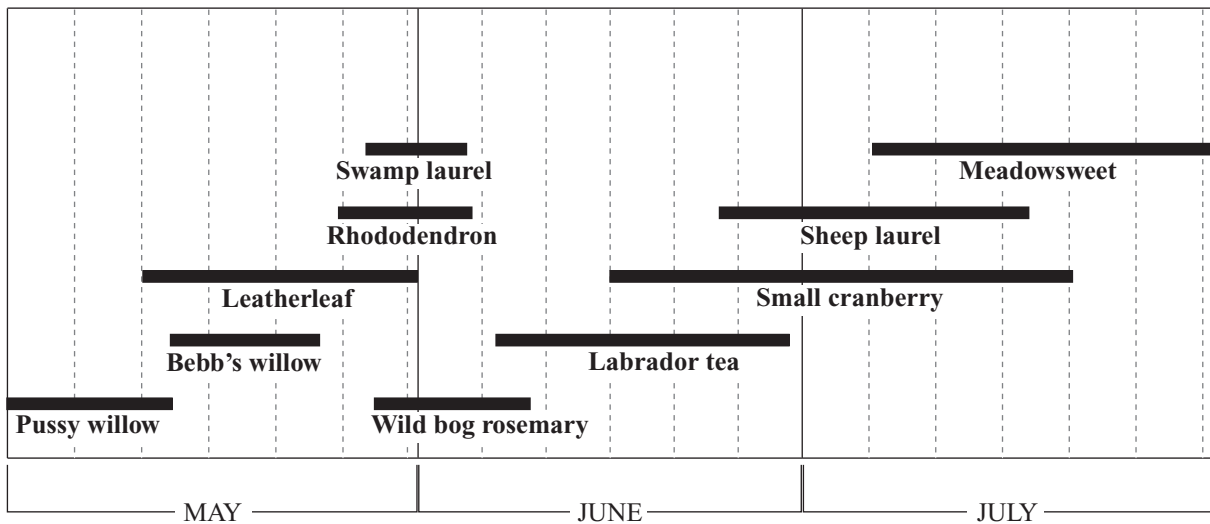
65 Which one of the following is true?

- A Alex came second.
- B Bethany came first.
- C Bethany beat Lani.
- D Jason came first.

UNIT 22

Questions 66 and 67

The figure indicates when, during a three-month period, ten different plants in an area in the northern hemisphere are flowering and providing nectar for bees.



- 66 The time when the greatest number of the plants is flowering is
- A mid May.
 - B late May.
 - C early June.
 - D late June.
- 67 For bees to obtain nectar at all times during the three months, what is the smallest number of these ten plants that need to flower?
- A four
 - B five
 - C six
 - D seven

UNIT 23

Question 68



- 68 Which one of the following best describes the main focus of the image above?
- A self-control
 - B complacency
 - C lack of imagination
 - D being forced to conform

UNIT 24

Questions 69 and 70

The image below was painted by the French artist Edouard Vuillard in 1893. It is a depiction of the artist's widowed mother (dressed in black and seated) and his sister at home.



- 69 The artist's depiction of his sister suggests that she is
- A artistic.
 - B submissive.
 - C subversive.
 - D disapproving.
- 70 The pose of the artist's mother suggests that she is
- A shy and indecisive.
 - B capable and resolute.
 - C gentle and compassionate.
 - D exhausted and grief-stricken.

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ACKNOWLEDGMENTS — Ivan Anchuokov, for cartoon #ian0012, Cartoonstock.com; for Solar Cover (Qld 2007): Czarnecki, J.T., (1978) *Swimming Pool Heating by Solar Energy*, CSIRO Division of Mechanical Engineering Technical Report No TR 19; for War Inscription: Davenport, W., *The Perfect Sinner*, Harper Collins, UK; for Oceans: Dietrich, G., *General Oceanography*, 1963, Wiley and Sons; for the poem ‘Prosperity’: Dransfield, M., *Michael Dransfield – Collected Poems*, 1987, University of Queensland Press; for the Car Crash cartoon: Andre Francois, *The Half Naked Knight*; for Leavening: Griswold, R. M., *The Experimental Study of Foods*, 1962, Houghton Mifflin Company; Sidney Harris for the Flowchart cartoon, Science Cartoons Plus, www.sciencecartoonsplus.com; for the Systems diagrams: *The Macroscope*, Joel de Rosnay, 1979, Harper & Row, NY; for extract on Khadifa and Aisha: Mahfouz, N., *Palace Walk*, 1991, Black Swan publishers, with permission from Random House Group Limited; for *Interior, Mother and Sister of the Artist*, 1893, by Edouard Vuillard: Scala Archives, Florence.

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