



# Victorian Certificate of Education 2012

## General Achievement Test

Thursday 14 June 2012

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 35 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.

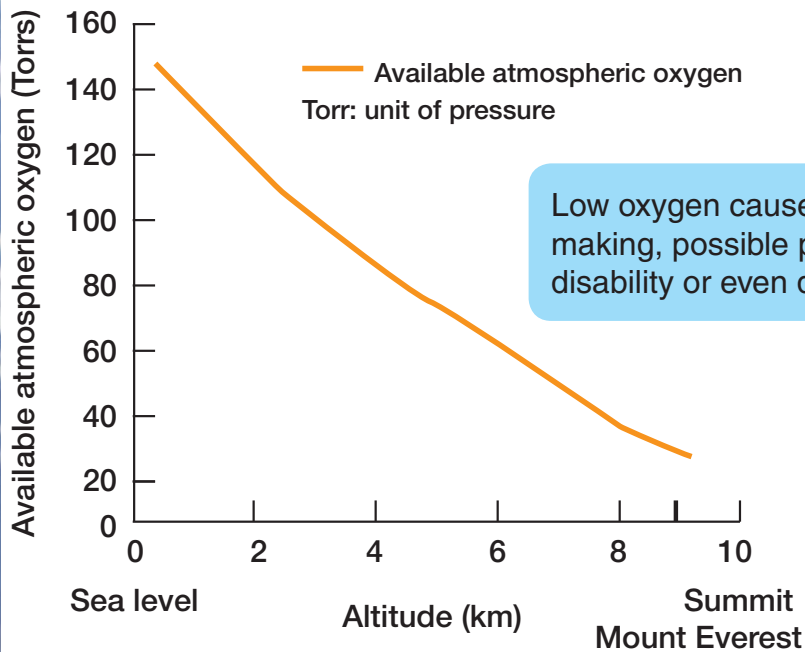
Consider the information on these two pages.  
Develop a piece of writing presenting the main information in the material. You should **not** present an argument.

Your piece will be judged on:

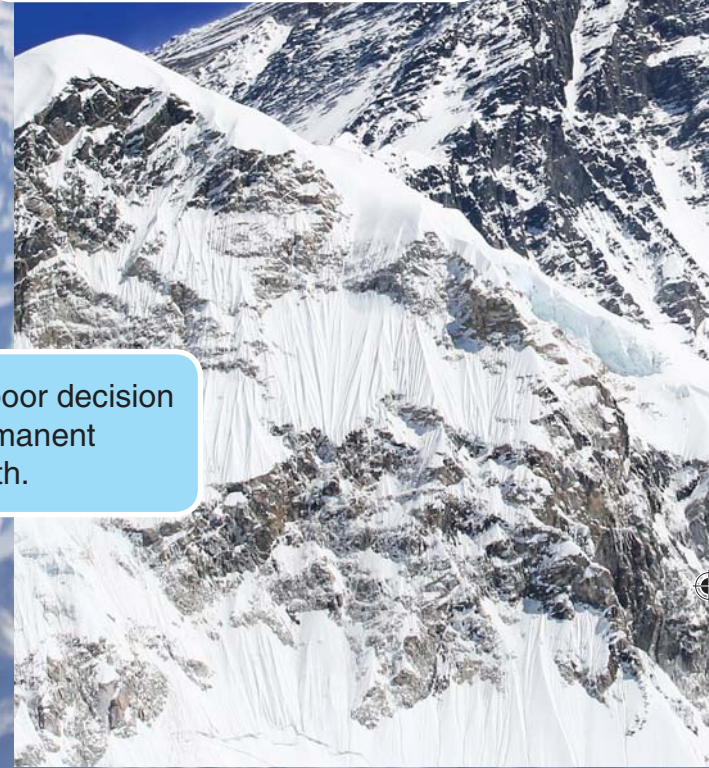
- how well you organise and present your understanding of the material,
- your ability to communicate the information effectively, and
- how clearly you express yourself.

In answer to the question 'Why do you want to climb Mount Everest?' English mountaineer, George Mallory, is believed to have said, 'Because it is there.'

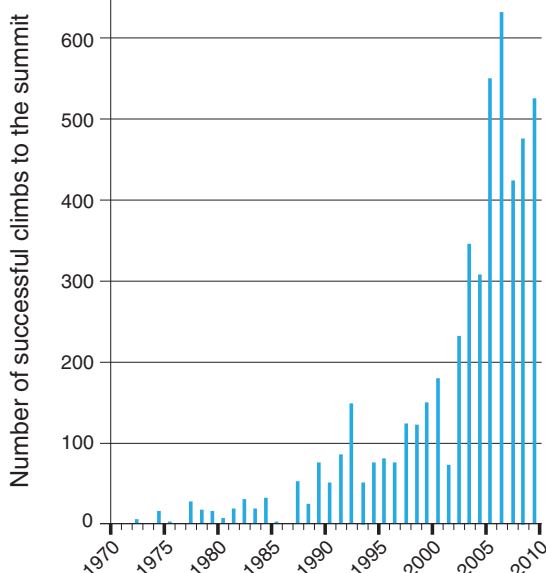
### Climbing Conditions



Low oxygen causes poor decision making, possible permanent disability or even death.



### Successful climbs to summit of Mount Everest since 1970



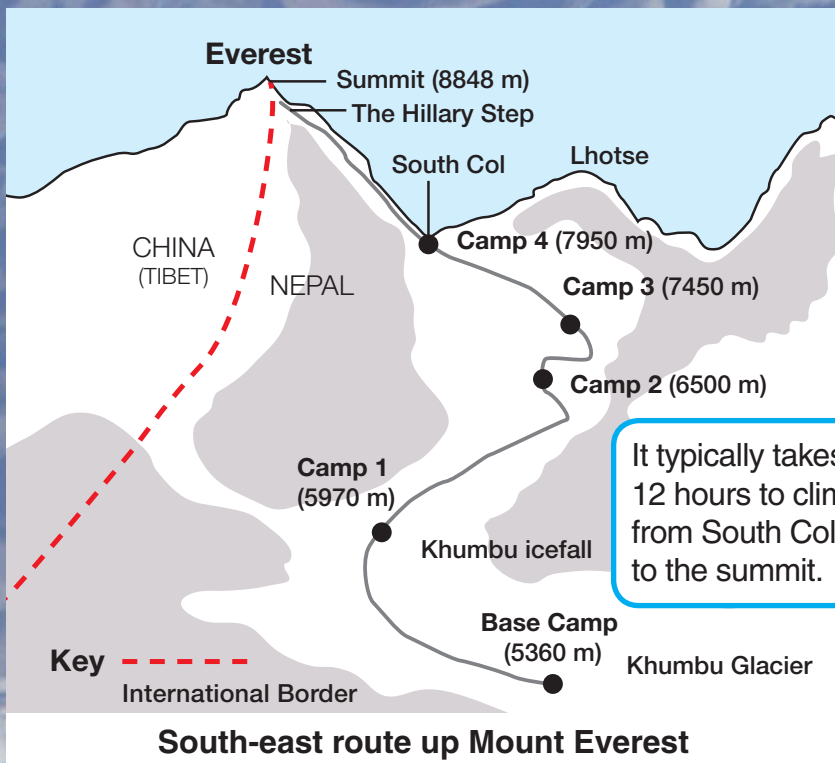
### National Museum Australia Everest Climbers' Camp Exhibit





The first people to reach the summit were Sherpa Tenzing Norgay (Nepal) and Edmund Hillary (New Zealand) on 29 May 1953.

'It is not the mountain we conquer, but ourselves.'  
– Edmund Hillary.



It typically takes 12 hours to climb from South Col to the summit.



A Nepalese Sherpa collecting rubbish at an altitude of 8000 metres, 2010.

**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
- how effectively you express yourself.

Drive and ambition are essential if you want to achieve anything worthwhile.

We should be satisfied with what we are, rather than worried about what we are not.

You can be successful without being happy, but you can't be happy without being successful.

Success is too often seen as related to the things we have rather than the people we are.

**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**

**‘You can be anything you want to be—no limits.’  
Cartoon by Peter Steiner, New Yorker magazine**

Due to copyright restriction,  
this material is not supplied.

- 1** This cartoon is a joke about the
- A** illusions of the powerless.
  - B** insecurity of the powerless.
  - C** exploitation of the small by the big.
  - D** difference between the big and the small.

## UNIT 2

### Questions 2 – 4

Below are four quotations about knowledge.

<p><b>I</b> The things we know best are those we have not learned. <i>Luc, Marquis de Vauvenargues</i></p>	<p><b>III</b> No real answer leaves the question intact. <i>Rosalynnda Grove</i></p>
<p><b>II</b> If you don't read the newspaper, you are uninformed; if you do read the newspaper, you are misinformed. <i>Mark Twain</i></p>	<p><b>IV</b> Certainty is more comfortable than knowledge. <i>Iakob Smythe</i></p>

- 2 Quotation I implies that profound knowledge comes from
- A research.
  - B intuition.
  - C intellectual endeavour.
  - D theoretical understanding.
- 3 Quotation II is best described as
- A illogical.
  - B practical advice.
  - C a cynical comment.
  - D a dogmatic pronouncement.
- 4 Which three quotations each contain an apparent contradiction?
- A I, II and III
  - B I, II and IV
  - C I, III and IV
  - D II, III and IV

**UNIT 3****Questions 5 – 8**

The table below gives the results (averages) of a study of the growth of a batch of *Ficus* plants under various conditions. Plants were grown from seed for 10 weeks:

- entirely in full sun; or
- entirely in 63% shade; or
- initially in full sun for a certain number of weeks before being moved to 63% shade for the rest of the 10 weeks.

Plants grown entirely in 63% shade have large, dark green leaves widely spaced along branches, while plants grown entirely in full sun have smaller, lighter green leaves more closely spaced along branches.

*Plant grade* refers to the quality of the plant for sale based on appearance. Grades below 3 are **not** saleable.

*Leaf drop* refers to the number of leaves subsequently dropped during shipping and the first two months in an indoor environment.

Due to copyright restriction,  
this material is not supplied.

- 5** Under what conditions is leaf drop **least**?
- A** when leaf area is lowest
  - B** when plant grade is lowest
  - C** when trunk diameter is greatest
  - D** when time grown in full sun is shortest



- 6 Under what conditions is plant grade highest?
- A when large, dark green leaves predominate
  - B when smaller, lighter green leaves predominate
  - C when weeks in full sun is equal to weeks in 63% shade
  - D when weeks in full sun is greater than weeks in 63% shade
- 7 Under which of the following conditions are plants most likely **not** of a saleable grade?
- A whenever leaf drop is greater than 500
  - B whenever leaf area is less than 210 cm<sup>2</sup>
  - C whenever plant height is less than 90 cm
  - D whenever growth in 63% shade is less than 2 weeks
- 8 Which of the following would most likely result in a plant grade of at least 4?
- A leaf area greater than 250 cm<sup>2</sup>, leaf drop less than 500
  - B five weeks full sun followed by five weeks of 63% shade
  - C leaf area between 200 and 300 cm<sup>2</sup>, trunk diameter of 2.0 cm
  - D trunk diameter less than 2.0 cm, plant height between 90 and 100 cm

**UNIT 4**

**Questions 9 – 12**

*The following passage is from a novel. The novel is written from the viewpoint of Henry Perowne, a middle-aged neurosurgeon. Theo is his son.*

Due to copyright restriction,  
this material is not supplied.

- 9 The passage suggests that Theo is most likely
- A shy, but eager-to-please.
  - B self-reliant and confident.
  - C homely, but unapproachable.
  - D bad-tempered and demanding.

- 10 Henry Perowne believes that some parents may feel
- A inadequate, in that they have failed their children.
  - B indifferent to their children because they are beyond their control.
  - C offended that they have so little influence over how their children turn out.
  - D dismayed at the effect of their own actions and characters on their children.
- 11 Henry Perowne's reaction to having fathered a 'blues musician' (line 24) is one of
- A awe.
  - B alarm.
  - C smugness.
  - D disappointment.
- 12 In lines 24–26, Henry Perowne is presented as being
- A essentially insecure.
  - B resentful and withdrawn.
  - C boring and underachieving.
  - D conventional and compliant.





**UNIT 6****Questions 18 – 20**

*The following questions are from a debate for and against the topic:*

**Democracy is the best form of government.**

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.

- 18 The views of the majority of people on important issues are formed by misguided self-interest.
- 19 Despite its widespread acceptance as a single concept, the term ‘democracy’ covers a large variety of systems.
- 20 Although the term ‘accountability’ is overused, a system of genuine accountability is the best foundation of a free society.

## UNIT 7

### Questions 21 – 24

An *odd–even sort* is a method used by computers to sort digits (1–9) into ascending order (i.e. lowest to highest). In this method, two digits in an adjacent pair are compared and then swapped if the digits are not already in numerical order.

For example, suppose the six digits 7 3 4 9 5 2 are to be sorted into ascending order. Each digit is given a position as shown, where  $P_1$  refers to the first position,  $P_2$  the second position, and so on:

$P_1$	$P_2$	$P_3$	$P_4$	$P_5$	$P_6$
7	3	4	9	5	2

#### Step 1

Pairs of digits,  $P_1$  and  $P_2$ ,  $P_3$  and  $P_4$ ,  $P_5$  and  $P_6$ , are compared and digits are swapped, if necessary.

In the example, 7 and 3 are swapped and 5 and 2 are swapped (because 3 is less than 7 and 2 is less than 5), but 4 and 9 are not swapped because 4 is already less than 9.

The result is 3 7 4 9 2 5.

#### Step 2

Now alternate pairs of digits,  $P_2$  and  $P_3$ ,  $P_4$  and  $P_5$ , are compared and digits are swapped, if necessary.

The result is 3 4 7 2 9 5.

Steps 1 and 2 are repeated until 2 3 4 5 7 9 is obtained. The table summarises the process.

Step	Comparison	Result
1	$7 \leftrightarrow 3$ $4 \leftrightarrow 9$ $5 \leftrightarrow 2$	3 7 4 9 2 5
2	$3$ $7 \leftrightarrow 4$ $9 \leftrightarrow 2$ $5$	3 4 7 2 9 5
3	$3 \leftrightarrow 4$ $7 \leftrightarrow 2$ $9 \leftrightarrow 5$	<b>X</b>
...	...	...
...	...	...
...	...	...
$n$	...	2 3 4 5 7 9

21 In the table above, what is **X**?

- A 3 4 2 5 7 9
- B 3 4 2 7 5 9
- C 3 4 2 7 9 5
- D 3 4 7 2 5 9

- 22 For the following, what must be the result of Step 2?

Step	Comparison	Result
1	?	?
2	?	?
3	?	5 7 2 3 8 9
...	...	...

- A** 5 7 2 3 9 8  
**B** 7 5 2 3 8 9  
**C** 7 5 2 3 9 8  
**D** It is not possible to determine the result of Step 2.

- 23 Consider a sort of six different digits: 5  $p$  3  $q$  7  $r$ .

Step	Comparison	Result
1	$5 \leftrightarrow p$ $3 \leftrightarrow q$ $7 \leftrightarrow r$	$p$ 5 $q$ 3 7 $r$
2	$p$ $5 \leftrightarrow q$ $3 \leftrightarrow 7$ $r$	$p$ $q$ 5 3 7 $r$
3	$p \leftrightarrow q$ $5 \leftrightarrow 3$ $7 \leftrightarrow r$	...
...	...	...

Which of the following is true?

- A**  $q$  must be 1.  
**B**  $p$  must be 1 or 2.  
**C**  $r$  must be 8 or 9.  
**D**  $q$  could be 4 and  $p$  could be 1.
- 24 For the following, which step produces the result: 1 2 3 6 7 9?

Step	Comparison	Result
1	$9 \leftrightarrow 2$ $6 \leftrightarrow 3$ $1 \leftrightarrow 7$	?
2	?	?
3	?	?
...	...	...

- A** 4  
**B** 5  
**C** 6  
**D** 7

## UNIT 8

### Questions 25 – 28

*Microfinance is the provision of savings, loans and money transfer services to those with low incomes, typically in countries with underdeveloped or developing economies.*

Banks are usually not interested in making loans to the poor because they cannot make profits from multiple small loans. Also, the poor rarely have any assets that the bank could use as security in case of default. The poor have no way to save or get credit for small business ventures, like home industries, or to provide for education or housing, or for large occasional family expenses like marriages and funerals. They inevitably become trapped in a poverty cycle. 5

In the past moneylenders have performed and still do perform some of the functions which can help solve these problems. Moneylenders can charge very high interest rates, especially to poorer borrowers – 10 to 100% per month, compared to 2 to 5% per month charged by institutions aiming only for sustainability. However, they can offer convenience and speed. 10

Microfinance institutions (MFIs) aim to make relatively small amounts of money and savings services available to the poor. Some make loans to individuals; others prefer to deal with groups; costs are less and social pressure works to ensure repayments. 15

MFIs have been growing throughout the third world rapidly in the last decade, helping to bring many more people who would otherwise continue in bare survival mode into national economies.

But they are not without problems. The Global Financial Crisis has had an effect on the availability of funds; in the period of rapid growth some MFIs have been less rigorous about applying lending principles, and where a number of MFIs operate, some people who take out multiple loans have been defaulting. Analysts say that MFIs should charge enough to cover their costs, so that they have no need to rely on large funders, such as governments, which should facilitate financial services, not provide them. 20

25

**25** The attitude of banks described in lines 1–3 suggests

- A** malice is their fundamental driving force.
- B** they are callous about the conditions of the poor.
- C** they lack information about the conditions of the poor.
- D** conventional business principles are their fundamental driving force.



- 26 Which of the following is the most likely reason moneylenders would charge high interest rates ‘especially to poorer borrowers’ (line 9)?

Moneylenders assume that poorer borrowers

- A need to learn the value of money.
  - B are more likely to take out the largest loans.
  - C will never be in a position to make repayments.
  - D are more likely to have urgent needs and less likely to repay in full.
- 27 Which of the following, in the context of the passage, is closest to the meaning of ‘sustainability’ (line 10)?
- A cost covering
  - B ecological soundness
  - C providing short-term loans
  - D government support to survive

Question 28 refers to the information in the passage and the chart below.

Worldwide Average Incomes

Income Category	Average Income Per Year (US\$)	Approximate Population (thousands)
High	22 800	960 000
Higher Medium	5 100	550 000
Lower Medium	1 800	2 200 000
Low	380	2 515 000

- 28 Which of the following is the strongest reason for promoting microfinance?
- A to distribute all average incomes evenly
  - B to improve the situation of the majority of people
  - C to increase the number of people in the High average income category
  - D to reduce the number of people in the High and Higher Medium average income categories

## UNIT 9

### Questions 29 – 33

Suppose a rule applies whereby:

- $\{2, 4\}$  represents  $2(x + 4)$ , which equals  $2x + 8$ ;
- $\{p, -3\}$  represents  $p(x - 3)$ , which equals  $px - 3p$ ;
- and so forth.

Note that the rules for multiplying numbers are: positive  $\times$  positive = positive  
 negative  $\times$  positive = negative  
 positive  $\times$  negative = negative  
 negative  $\times$  negative = positive

**29**  $\{3, 2\}$  is equal to

- A  $2x + 3$
- B  $2x + 6$
- C  $3x + 2$
- D  $3x + 6$

**30**  $8x + 2$  is equal to

- A  $\{8, \frac{1}{4}\}$
- B  $\{8, 4\}$
- C  $\{8, 2\}$
- D  $\{8, \frac{1}{2}\}$

**31**  $\{3, -1\} + \{-1, 2\}$  is equal to

- A  $2x - 5$
- B  $2x + 1$
- C  $2x - 1$
- D  $4x - 1$

**32**  $\{-3, -2\} + \{5, -1\}$  is equal to

- A  $\{2, 1\}$
- B  $\{2, \frac{1}{2}\}$
- C  $\{-2, -\frac{1}{2}\}$
- D  $\{2, -3\}$

**33**  $\{-2, 3\} + \{1, 4\}$  is equal to

- A  $\{-1, 2\}$
- B  $\{-1, -2\}$
- C  $\{-1, 7\}$
- D  $\{1, -2\}$

## UNIT 10

### Questions 34 – 36

The following comments relate to social media such as Facebook and Twitter.

<p><b>Comment 1:</b> Social media is not a product, it's a movement. You can't buy it, but you can buy into it.</p>	<p><b>Comment 3:</b> Social media can help solve the problems of the world. It keeps people informed, and sends messages of hope and practical purpose to those who need them. We need to focus on what it can do, not what it shouldn't do.</p>
<p><b>Comment 2:</b> People say that the use of complex technology is changing our cultural and social landscape. But there is nothing complex about the social media. It's more about social change than technological change.</p>	<p><b>Comment 4:</b> Social media is not a fad. It has tapped into the human need to make connections with each other, so it's not going away.</p>

- 34 Which of the following questions is best answered by Comment 4?
- A Do Facebook and Twitter allow us to have a deep connection to one another?
  - B Is it likely that Facebook and Twitter will become redundant, like letter-writing?
  - C Should we tolerate the superficial type of communication that social media promotes?
  - D Are we likely to embrace more sophisticated forms of social media than those that already exist?
- 35 What is common to all the comments on social media?
- They all
- A focus on the technology involved.
  - B attempt to play down the impact of social media.
  - C emphasise the human inclination to communicate.
  - D highlight the problems that social media generate.
- 36 Which comment emphasises personal choice as a component of social media use?
- A Comment 1
  - B Comment 2
  - C Comment 3
  - D Comment 4

## UNIT 11

## Questions 37 – 39

Many butterflies have spots, known as eyespots, on their wings. Consider the following possible explanations of the behaviour of birds in relation to eyespots on butterfly wings.

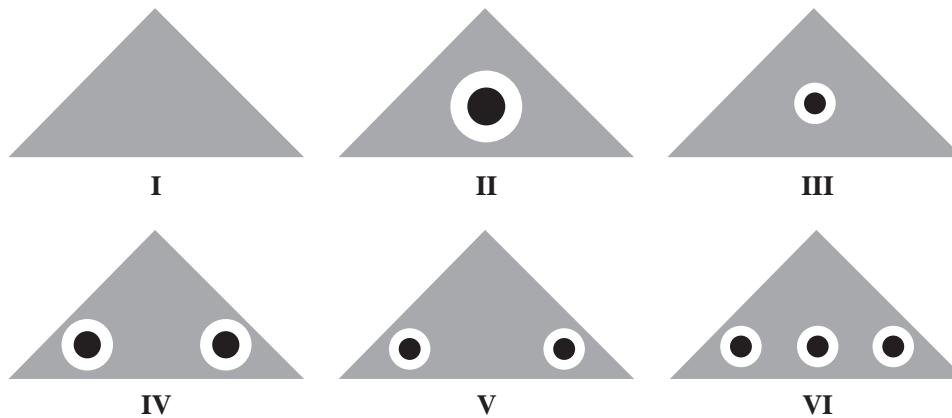
**Explanation X:** Birds avoid butterflies with two eyespots on each wing.

**Explanation Y:** Birds avoid butterflies with relatively large eyespots.

**Explanation Z:** Birds avoid butterflies with the greatest number of eyespots.

To test the three explanations, six artificial model wings (I–VI) of the same size and shape were made out of waterproof card and patterned as shown in the figure. An artificial worm (food for the birds) was placed under each wing, with part of it protruding so that it was visible to the birds. The models were placed in identical prominent positions and the number of attacks by the birds noted.

- Assume that the birds view the models from the same distance.



- The area of the eyespot in **II** is equal to the combined area of the two eyespots in **IV**, and to the three eyespots in **VI**.
- The area of each eyespot in **III**, **V** and **VI** is the same.

37 The results for which models should be compared to best test **Explanation Y**?

- A I and II
- B II and III
- C III and V
- D V and VI

38 Suppose neither **Explanation X** nor **Explanation Y** is supported.

Of the following, which two models could **not** be compared to test **Explanation Z**?

- A I and III
- B II and VI
- C IV and V
- D V and VI



- 39 Suppose the number of attacks on models, from least attacks to most attacks, was observed to be **II**, then **IV**, then **V**, then **VI** and **III** equally, then **I**.

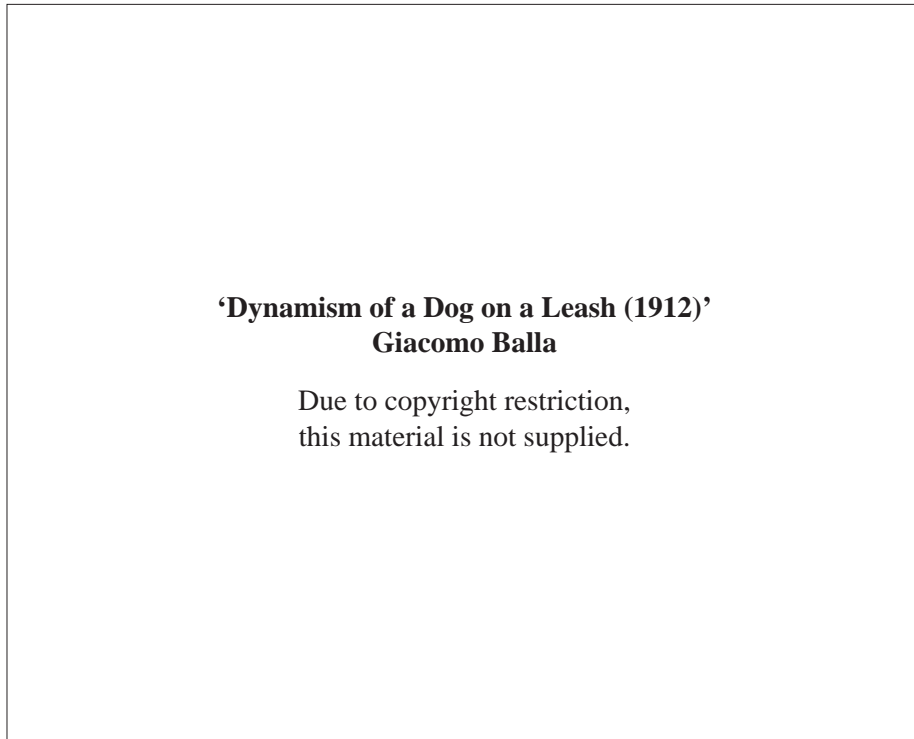
Of the following, this observation suggests most strongly that **Explanation**

- A **X** is more strongly supported than **Z**, and **Y** is not supported.
- B **Y** is more strongly supported than **X**, and **Z** is not supported.
- C **Y** is less strongly supported than **X**, but more strongly supported than **Z**.
- D **X** is less strongly supported than **Z**, and **Y** is more strongly supported than **Z**.

## UNIT 12

### Question 40

*The image below was painted by the Italian artist Giacomo Balla in 1912.*

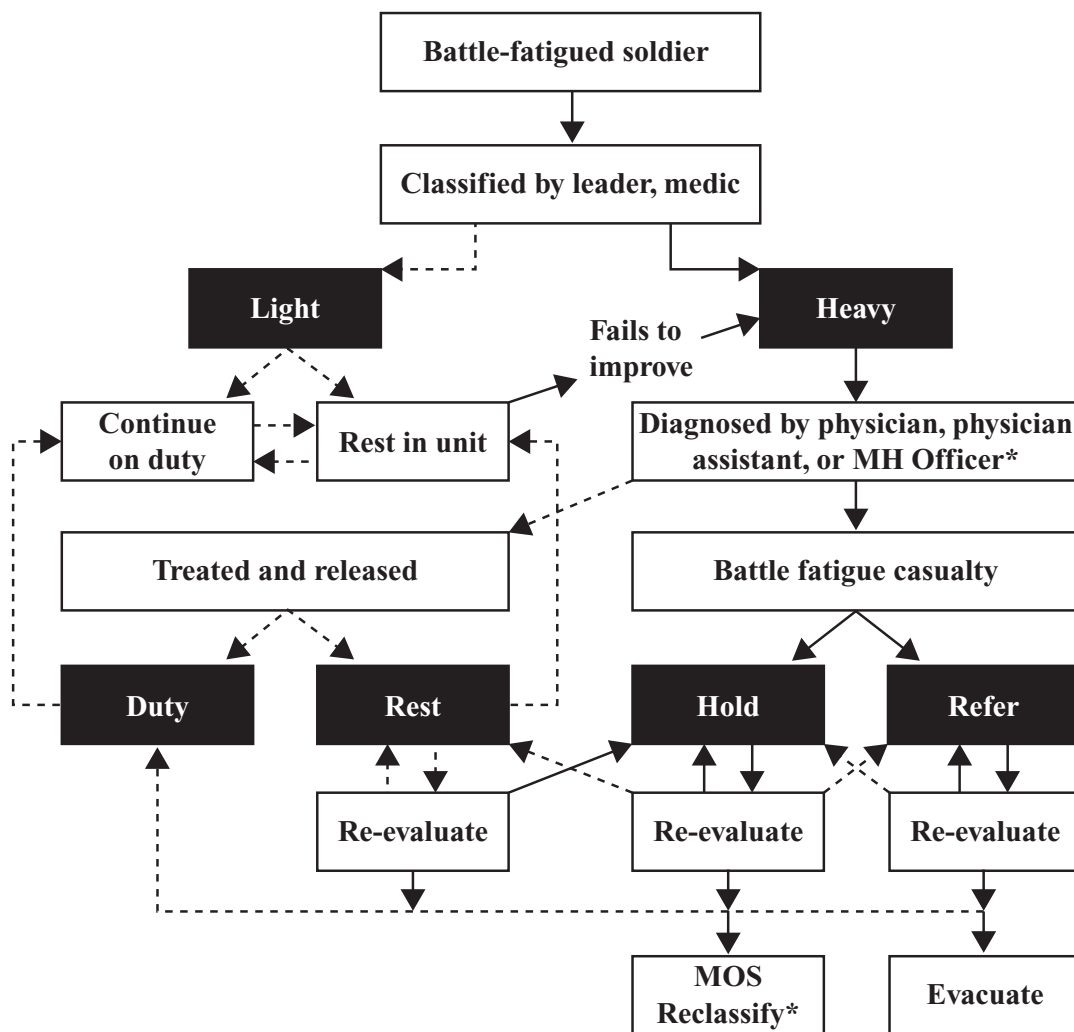


- 40 The painting suggests that the artist was most interested in
- A depicting the bond between animals and humans.
  - B accurately recording anatomical detail.
  - C the effect of light and shadow.
  - D representing energy.

UNIT 13

Questions 41 – 43

'Battle fatigue' was a term used in World War II. This psychological disorder, now known as Post-Traumatic Stress Disorder, is caused by the stress of warfare. The disorder decreases a soldier's ability to fight effectively. The diagram below shows how choices were made regarding the classification and processing of battle fatigue cases in the US Army during World War II.



**Key**

- ←----- Return to duty
- ←----- Evaluate

---

\*MH Officer: Military Hospital Officer  
 \*MOS Reclassify: changing a soldier's military occupational specialty

- 41 The diagram suggests that soldiers who were placed into **Rest** were
- A potentially fit for battle.
  - B expected to suffer battle fatigue again.
  - C currently considered medical casualties.
  - D reclassified into a new occupational speciality.

- 42 The diagram suggests that soldiers who were placed into **Continue on duty**
- A had to be treated before returning to battle.
  - B did not have battle fatigue in the first place.
  - C were protected against a recurrence of battle fatigue.
  - D could still be evacuated if their symptoms did not improve.

- 43 The diagram suggests that **Rest** was
- A considered a weakness.
  - B an important part of recovery.
  - C a form of medical re-evaluation.
  - D directly preliminary to being treated and released.

## UNIT 14

### Questions 44 – 47

The number of car spaces and bicycle spaces allocated at a shopping centre is determined by the *gross floor area* (GFA, measured in m<sup>2</sup>) of the offices, shops and restaurants.

The regulations for calculating the number of car spaces and bicycle spaces are as follows.

	Car spaces	Bicycle spaces
<b>Office:</b>	1 space per 40 m <sup>2</sup> GFA	1 space per 100 m <sup>2</sup> GFA
<b>Shop:</b>	Staff: 1 space per 100 m <sup>2</sup> GFA Customers: 4 spaces per 100 m <sup>2</sup> GFA	1 space per 50 m <sup>2</sup> GFA up to 300 m <sup>2</sup> and an additional 1 space per 100 m <sup>2</sup> GFA after this
<b>Restaurant:</b>	Staff: 1 space per 100 m <sup>2</sup> GFA Customers: 1 space per 10 m <sup>2</sup> GFA	1 space per 3 total car spaces

- Only full spaces are allocated. If a calculation produces a fraction, the fraction is ignored and the number is rounded down.
- The number of car spaces is the sum of staff and customer car spaces.

44 How many car spaces and bicycle spaces are required for offices with a GFA of 3000 m<sup>2</sup>?

	Car spaces	Bicycle spaces
<b>A</b>	55	30
<b>B</b>	55	40
<b>C</b>	75	30
<b>D</b>	75	40

45 An office has 250 car spaces.

How many bicycle spaces should be provided?

- |              |              |
|--------------|--------------|
| <b>A</b> 50  | <b>C</b> 150 |
| <b>B</b> 100 | <b>D</b> 200 |

46 The total GFA for a restaurant is 300 m<sup>2</sup>.

How many bicycle spaces should be provided?

- A** 9  
**B** 10  
**C** 11  
**D** There is insufficient information to determine this.

47 Which of the following has the largest GFA?

- A** a shop with 70 car spaces  
**B** a shop with 10 staff car spaces  
**C** an office with 12 bicycle spaces  
**D** There is insufficient information to determine this.



## UNIT 15

## Questions 48 and 49

Tony is making cloth potholders to protect his hands when holding hot cooking pots. He has some thin checked cotton material and some thicker, quilted, heat-protective cotton lining material. He draws a pattern as shown in Figure 1.

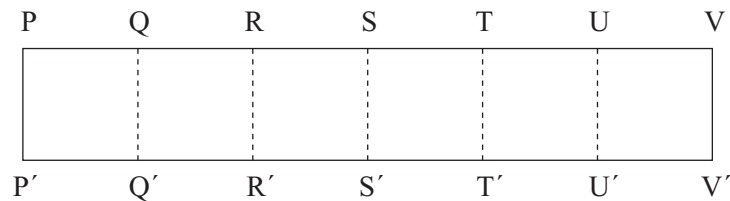


Figure 1: Pattern for a potholder



Figure 2: Folded potholder material before sewing

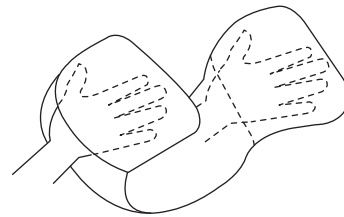


Figure 3: Using the potholder

48 Part of the process of making the potholder requires sewing

- A  $TT'$  and  $RR'$ .
- B  $RR'$  and  $PP'$ .
- C  $RST$  and  $R'S'T'$ .
- D  $TUV$  and  $T'U'V'$ .

Question 49 refers to the following additional information.

The squares on the pattern are numbered as shown.

I	II	III	IV	V	VI
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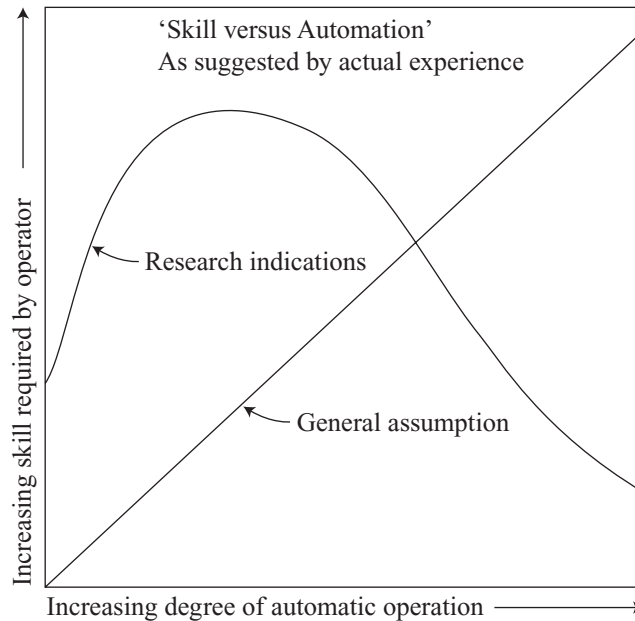
49 To provide protection for the fingers, hands and forearms, but make the most economical use of material, the thick quilted lining should be sewn to the thin checked material in

- A all squares.
- B squares I, II, III, IV and V.
- C squares II, III, IV and V.
- D squares III, IV, V and VI

## UNIT 16

### Questions 50 – 52

The diagram below shows the relationship between increasing levels of automation and job skill requirements as new technologies are applied in the workplace.



### Relationship between Increasing Levels of Automation and Job Skill Requirements

- 50 The diagram indicates a general assumption that as automatic operation increases
- operators require fewer skills.
  - operators require increased skills.
  - operators do not learn from experience.
  - the number of operators needed increases.
- 51 From the diagram, the general assumption about the effect of increased automation is best described as
- partially supported by findings.
  - precise and valid.
  - inaccurate.
  - untestable.
- 52 Which of the following most accurately summarises the research findings illustrated by the diagram?
- Operators gradually increase their skills and are constantly learning while ‘on the job’.
  - Operators find new skills easy to learn at first, but then a high proportion become disillusioned and give up.
  - After an initial period of high skill development, operators master the machine and do not need to learn further skills.
  - After a slow introductory period of learning, operators become familiar with the machine and learn additional new skills more quickly.

## UNIT 17

## Questions 53 – 55

## Mother, Washing Dishes

She rarely made us do it –  
 we'd clear the table instead – so my sister and I teased  
 that some day we'd train our children right  
 and not end up like her, after every meal stuck  
 with red knuckles, a bleached rag to wipe and wring. 5

The one chore she spared us: gummy plates  
 in water greasy and swirling with sloughed<sup>1</sup> peas,  
 globs of egg and gravy.

Or did she guard her place  
 at the window? Not wanting to give up the gloss 10  
 of the magnolia<sup>2</sup>, the school traffic humming.  
 Sunset, finches at the feeder. First sightings  
 of the mail truck at the curb, just after noon,  
 delivering a note, a card, the least bit of news.

*Susan Meyers*

<sup>1</sup> *sloughed*: discarded

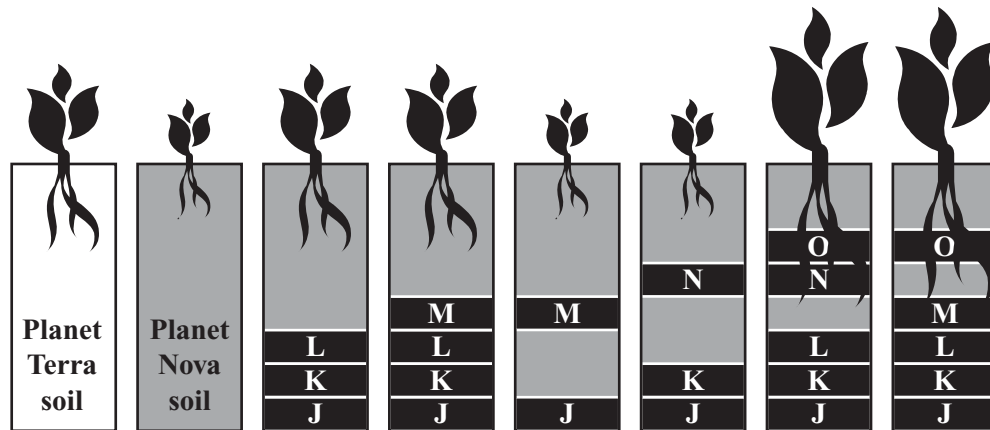
<sup>2</sup> *magnolia*: a flowering tree

- 53 Lines 1–5 imply that the children
- A thought their mother was too liberal.
  - B had schemed to get out of washing the dishes.
  - C thought their mother had failed in her moral duty.
  - D were offended that they were not allowed to wash the dishes.
- 54 It seems from lines 1–8 that the mother
- A revelled in tasks others might find unpleasant.
  - B wanted to save the children from an unpleasant task.
  - C thought the children were too young to undertake domestic duties.
  - D hadn't realised that the children would have been happy to wash the dishes.
- 55 A major impression from lines 9–12 is that the mother
- A may have had her own small pleasures in mind.
  - B was selfishly denying the girls some small pleasures.
  - C had many strategies for taking her mind off the dishes.
  - D assumed the girls would not be interested in the world outside.

UNIT 18

Questions 56 – 59

After landing on a new planet (Nova), scientists from their home planet (Terra) conducted seven tests (I to VII) to determine which of six soil factors (J, K, L, M, N and O) could be added to the soil of Planet Nova in order to grow their favourite food, Nekta. The figure gives the results for Nekta growth, taste and texture when soil factors were or were not added to Planet Nova soil. For example, in Test II, just factors J, K and L were added to Planet Nova soil.



	Planet Terra soil	Test I	Test II	Test III	Test IV	Test V	Test VI	Test VII
Taste		Salty		Sweet	Sweet			Sweet
Texture		Crisp			Crisp	Sticky	Sticky	

Assume that:

- if no comment is made about taste or texture, it is the same as for Nekta grown in soil from Planet Terra;
- each soil factor has just **one** effect and does not interact with any other factor;
- other than the modifications indicated, all tests are conducted in conditions (e.g. temperature, light and water) identical to those on Planet Terra.

56 Which of the following is the most likely effect of adding soil factors J, K, N and O to the soil on Planet Terra?

The Nekta would be

- A crisp, but not sticky, and grow larger.
- B sticky, but not crisp, and grow larger.
- C crisp, sticky, grow normally and taste salty.
- D sticky, but not crisp, grow normally and taste sweet.

57 Which of the following is **least** useful in determining the effect of soil factor **M**?

- A tests **I** and **III**
- B tests **I, II** and **III**
- C tests **II** and **III**
- D tests **III, IV** and **V**

58 Which of the following is the effect of insufficient soil factor **K** on Nekta?

- A sweet taste
- B crisp texture
- C sticky texture
- D stunted growth

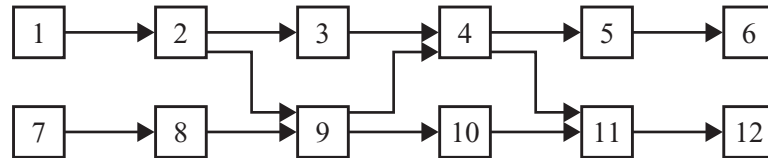
59 The lack of which of the following soil factors causes Nekta to taste salty?

- A **J**
- B **K**
- C **L**
- D **M**

## UNIT 19

## Questions 60 – 63

An electronic circuit board consists of 12 components as shown. An arrow indicates that one component depends on another component to be active in order to function. For example, Component 2 requires Component 1 to function, while Component 9 requires both Components 2 and 8 to function. If there is a fault in only Component 5, Component 12 would still function, but Component 6 would not.



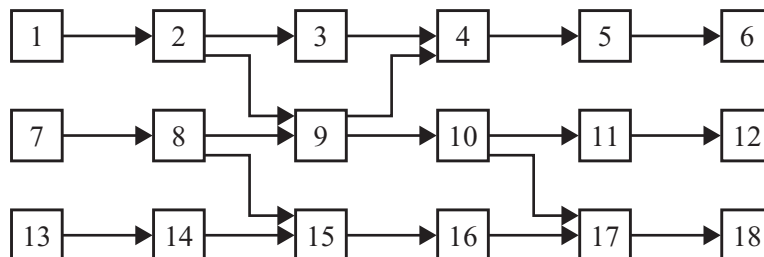
Note: Unless otherwise stated, assume only one component is faulty (but more than one other may not function as a result).

- 60 For the circuit above, suppose Component 6 functions, but Component 12 does **not** function.

Which of the following lists all the components that may need to be tested to find the faulty component?

- A 10, 11, 12
- B 4, 10, 11, 12
- C 7, 8, 9, 10, 11, 12
- D 2, 4, 7, 8, 10, 11, 12

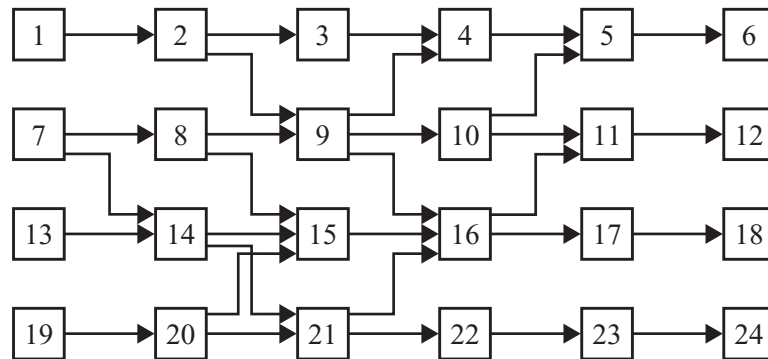
- 61 Suppose in the following circuit, Component 2 is faulty.



Which of Components 6, 12 and 18 will function?

- A Component 12 only.
- B Component 18 only.
- C Components 12 and 18 only.
- D None of the three components will function.

Questions 62 and 63 refer to the following diagram.



62 Suppose Components 18 and 24 function, but Components 6 and 12 do **not** function. Which of the following could be the faulty component?

- A 7
- B 8
- C 9
- D 10

63 Which of the following components, if faulty, would result in the greatest number of other components **not** functioning?

- A Component 3
- B Component 9
- C Component 15
- D Component 21



## UNIT 20

### Questions 64 – 68

*The following article concerns an urban art exhibition, held in 2010 several storeys under the streets of New York, in an abandoned subway station now sealed up by the city's Metropolitan Transit Authority. The 100-plus artists from around the world involved are generally known as 'street artists'. They often illicitly use public spaces to create murals, stencil and sticker art, and street installations.*

In an abandoned subway station in New York one of the strangest art exhibitions in history, the Underbelly Project, was assembled. Participants, who were all invited, had to supply their own materials and make their own way to New York. They included some big names, like Ron English, whose work sells in galleries for hundreds of thousands of dollars, and other famous urban artists, like Swoon, Revok and the FAILE collective. Not all the artists invited were willing to risk being involved. Banksy, a famous English street artist, declined with thanks, since he was involved with promoting a film he'd made. 5

The show took 18 months to produce, but only a handful of people not involved in creating it have ever seen it, or ever will. The site, left unfinished when a subway expansion project ran out of money in the 1930s, is normally in complete darkness. One Australian artist, Strafe, fell from the platform while working; she wasn't badly hurt, but it could easily have been serious, and help would have been hard to get. Other artists had to avoid subway repair crews working nearby at night. 10

The project organisers are publicly known only by their aliases, Workhorse and PAC, mainly because they fear prosecution. New York City Transit and the city's Police Department warned that such activities are both dangerous and illegal. After bloggers revealed the station's probable site, it was guarded by police who arrested some who attempted to get in. 15

For Workhorse and PAC, the project was at least in part an attempt to take their art back to its roots, and recapture what had driven them to do it in the first place. For them, urban art's popularity has had a mixed effect. Their work is now sold in galleries, and they make money. But in that process they have lost something valuable to them. The Underbelly Project was meant to get something of that back. 20

The completed project did have one viewing. The organisers invited a handful of reporters to see it and inform the world. They wanted it to have a place in urban art traditions. Some have questioned their interest in publicity. If their intention was to get back to non-commercial purity, they ask, why should they need public acknowledgement? 25

- 64** The passage suggests that for the artists, a fundamental principle of urban art has been
- A** showing authorities how to make public areas more attractive.
  - B** demonstrating a macho disregard for personal safety.
  - C** rejecting the assumptions of mainstream society.
  - D** promoting public distaste for mainstream art.

- 65 The main risk the artists invited to the project had to consider concerned the
- A anonymity of the project.
  - B financial success of the project.
  - C disapproval of artists not involved in the project.
  - D consequences for their activities outside the project.
- 66 The passage implies that urban art's commercial popularity flows from
- A dislike of art dealers.
  - B mainstreaming the radical.
  - C dislike of wealth and privilege.
  - D marginalising mainstream culture.



Questions 67 and 68 refer to the image above, *Welcome to Hell* by TrustoCorp, from the Underbelly Project.

- 67 It seems likely that 'Welcome to Hell' was inspired partly by TrustoCorp's
- A respect for the skills of advertising.
  - B belief that nobody would see their work.
  - C contempt for the primitiveness of cartoon art.
  - D awareness of the location they were working in.
- 68 'Welcome to Hell' criticises American
- A commercial exploitation.
  - B standards of hygiene.
  - C standards of service.
  - D youth culture.

## UNIT 21

## Questions 69 and 70

*The painting below was painted in 1914 by the Italian artist Giorgio de Chirico.*

**‘Mystery and melancholy of a street (1914)’**

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this material is not supplied.

**69** Which of the following words best describes the atmosphere of the painting?

- A sad
- B joyful
- C serene
- D menacing

**70** The painting suggests that the city is

- A dynamic and chaotic.
- B grimy and degraded.
- C desolate and disturbing.
- D sophisticated and cultured.

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