

# Victorian Certificate of Education 2005

# **General Achievement Test**

# Wednesday 8 June 2005

Reading time: 10.00 am to 10.15 am (15 minutes) Writing time: 10.15 am to 1.15 pm (3 hours)

# **QUESTION BOOK**

Type of questions	Number of questions to be answered	Suggested times (minutes)	Suggested time allocation
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

#### Structure of book

- 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 46 pages.
- Answer sheet for multiple-choice questions.
- Script book for **both** Writing Task 1 and Writing Task 2.

# Instructions

- Write your **student number** on the script book.
- Check that your **name** and **student number** as printed on your answer sheet for multiple-choice questions are correct, **and** sign your name in the space provided to verify this.
- 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

- Place the answer sheet for multiple-choice questions inside the front cover of the script book.
- You may keep this question book.

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



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.



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Survey of Virtual Pet owners: Virtual Pet and a real dog differences between the

Real Dog	7	7	7	7	7	7	7	7	7
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	Shows 'emotions'	Needs food	Can recognise owner	Needs shelter	Can bite	Needs grooming	Needs exercising	Can learn new tasks independently	Teaches children about responsibility







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# WRITING TASK 2To be answered in the script 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.

Sport is given too much importance in our society, and it takes attention away from more important things.

Playing sport can help us to grow and be responsible.

Sport gives people the challenge and the sense of achievement that are needed for physical and mental health.

> Sport brings out the worst in people. Many more people are harmed by sport than are helped by it.

# **MULTIPLE-CHOICE QUESTIONS**

# To be answered on the Answer Sheet for Multiple-Choice Questions.

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 sheet for multiplechoice questions according to the instructions on that sheet.

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.

#### Questions 1 – 4

#### Passage 1

#### Blog (bläg) n. [short for Web log]

**1.** a website that accommodates easy and frequent posting on any topic; **2.** an online platform for personal anecdotes, criticism and discussion, often featuring links to other websites; **3.** an outlet for obsessive<sup>1</sup> personalities.

The definition above was written by a blogger — the name given to a person who participates in blogging on the Internet. The same person wrote the following passage about her experiences of blogging.

#### Passage 2

In March 2000, I'd abandoned the practice of law and accepted a nine-to-five position as an editor with a publishing company. I threw myself into the new job with an obsessive vigour that would soon mutate into burnout, just as it had in every position I'd held since law school. When office burnout struck, I stayed home and turned my energy to the Internet.

Within a few short weeks I had become addicted to Crabwalk.com, a blog put together by Josh Benton, a young reporter for the Dallas Morning News. I was drawn in by Benton's voice and by his idiosyncratic<sup>2</sup> coverage. He offered a unique mix of funny, personal posts and commentary on arts, culture and politics. He encouraged reader participation, responding to comments and holding a birthday-card drive for his elderly grandmother who lived in Louisiana and didn't think anyone would mark the occasion.

Excited by the blend of mild exhibitionism and cultural commentary I saw Benton achieving, I decided to start a blog of my own. People are drawn to blogs because they filter the news with personality. What's more bloggers aren't afraid to disagree with the mainstream media, and they have a cheap and easy forum in which to do it. Increasingly, they're posting not just links to other news sources, but also their own reviews and ideas.

- <sup>1</sup> *obsessive*: consumed by one idea
- <sup>2</sup> *idiosyncratic*: highly individual

#### **Question 1**

Which of the definitions in Passage 1 is reflected in the content of Passage 2?

- A 1 only
- **B** 1 and 2 only
- C 1 and 3 only
- **D** 1, 2 and 3

5

15

10

Which of the definitions in Passage 1 tells us most about the writer of Passage 2?

- **A** 1
- **B** 2
- **C** 3
- **D** 1 and 2 combined

# **Question 3**

The writer suggests that Josh Benton's website was worthwhile mainly because it was

- A scholarly.
- **B** excessive.
- **C** subversive.
- **D** interactive.

# **Question 4**

According to the writer, people enjoy blogs for their

- A individuality.
- **B** sophistication.
- C academic content.
- **D** balanced reports of the news.

# Questions 5 – 7

Hilary bought some marshmallows. The marshmallows have a smiley face pattern on them that goes through each marshmallow and can be seen on both ends (Figure 1 (a)). She holds up a marshmallow and turns it so that she sees the views shown in I, II, III and IV (Figure 1 (b)).





#### **Question 5**

Andrew stands in front of Hilary facing her while she holds up a marshmallow so she sees view III.

What does Andrew see from his side?



Hilary cut up some smiley face marshmallows for her friends as shown in Figure 2. The cut side is shown shaded in Figure 2.



Which one of the following best illustrates the pattern that could be on the cut side?



#### **Question 7**

Hilary holds a marshmallow in front of her so she sees view I. She considers flipping it over to see the other side and rotating it  $90^{\circ}$  or  $270^{\circ}$ .

How could Hilary turn the marshmallow to see view IV?

- A flip it over from bottom to top and rotate  $90^{\circ}$  clockwise
- **B** flip it over from bottom to top and rotate  $90^{\circ}$  anticlockwise
- $\mathbf{C}$  rotate it 90° anticlockwise and flip it over from bottom to top
- **D** rotate it  $270^{\circ}$  clockwise and flip it over from bottom to top

# Questions 8 and 9

The following headlines appeared in the media in regard to the issue of a curfew for all young people under the age of 18. A curfew is a law which requires people to remain indoors between specific hours, usually at night.

I	Youth curfew urged to curb 'mischief-making'	III Curfew proposal under fire
	News article quoting Police Spokesperson, Newspaper 1	Commentary by Civil Liberties Spokesperson, Newspaper 3
Π	Curfew not the answer	IV Curfew needed to fight criminals of tomorrow
	Editorial, Newspaper 2	Letter to the Editor, Newspaper 4

# **Question 8**

Which headline presents the most negative view of youth behaviour?

Headline

Α	Ι	С	III
B	II	D	IV

# **Question 9**

Which of the headlines is **not** a personal opinion?

Hea	adline		
A	Ι	C	III
B	II	D	IV

#### Questions 10 and 11

Seven dolphins were observed to form a dominance hierarchy (where each dolphin is more or less dominant to one or more others). Some observations of dominance were as follows:

- Alice dominant to Bert
- Carmel dominant to Dave
- Bert dominant to Dave
- Edna dominant to Felicia
- Felicia dominant to both Carmel and Bert
- Gordon dominant to both Felicia and Alice

Observations were not made of all possible pairs of dolphins, but assume that if dolphin X is dominant to dolphin Y, and dolphin Y is dominant to dolphin Z, then dolphin X is dominant to dolphin Z.

#### **Question 10**

In which one of the following pairs could the two dolphins **not** be at the same dominance level?

- A Carmel and Bert
- **B** Gordon and Edna
- C Alice and Felicia
- **D** Felicia and Dave

#### **Question 11**

Which dolphin is dominant over all the others?

- A Edna alone
- **B** Gordon alone
- **C** both Edna and Gordon equally
- **D** either Edna or Gordon, or both equally

#### Questions 12 – 14

Jamie is using the plan below to build a wooden frame to contain soil for a garden bed that will fit in a corner of a courtyard. It is made with pieces of timber that are all 200 mm wide and 30 mm thick, but vary in length.

The frame is made of three layers as shown. Each layer consists of six pieces of timber of various lengths whose ends overlap in a consistent pattern. The overlap pattern is reversed in the middle layer compared with the other two layers.

Two bolts are used at each joint of two pieces of timber (only the two bolts at one joint are shown in the figure). The three layers are not connected to each other by bolts, but by metal strips (hidden from view).



How many pieces of timber are used to make the frame?

- **A** 6
- **B** 12
- **C** 18
- **D** 24

# **Question 13**

How would the joint between Q and S look (from the top view)?





# **Question 14**

What is the total length of timber required for one layer of the frame?

- A 4080 mm
- **B** 4280 mm
- C 4340 mm
- **D** 4400 mm

# Questions 15 – 18

Gillian Bouras, A Foreign Wife, Penguin Books, Ringwood, 1980, pp 43-44.

Due to copyright restriction, this material is not supplied.

The description of the punk as the 'female of the species' suggests the writer takes

- **A** a philosophic view of her.
- **B** a biological view of her.
- **C** a political view of her.
- **D** an artistic view of her.

# **Question 16**

The people on the tram

- **A** are unaware of the punk.
- **B** hide their shock from the punk.
- **C** know what the punk wants to do.
- **D** do not know what to think of the punk.

#### **Question 17**

The Australian philhellene sees Australia as

- A vibrant and intense.
- **B** unpressured and open.
- C casual and complacent.
- **D** challenging and exciting.

# **Question 18**

According to the writer, some see Australia as

- A too large.
- **B** unexciting.
- C undeveloped.
- **D** unwelcoming.

#### Questions 19 - 22

Many canals have structures called *locks* built into them. A lock is a section of the canal with large watertight gates at each end. The lock allows boats moving upstream or downstream to be raised or lowered vertically to a new level by raising or lowering the water level in the lock. The lock gates are fitted with valves that can be opened to let water flow in or out (i.e. on entry or exit, water level in the lock is the same as water level in the canal).

Figure 1 shows a lock in a canal with Boat 1 upstream waiting to enter it so it can go downstream, and Boat 2 downstream waiting to travel upstream. In Figure 1, R is the water level in the lock.

The canal is wide enough so that boats can pass each other, but only one boat at a time is allowed in the lock.

- At the stage shown, both lock gates are closed, and both valves are closed.
- Gates and valves can be opened independently.



Figure 1

#### **Question 19**

If Boat 2 enters the lock, to allow it to exit on the upstream side, the water level needs to move from

- A S to Q.
- **B** S to R.
- **C** R to P.
- $\mathbf{D}$  R to Q.

Suppose in the situation shown in Figure 1, Boat 2 waits while Boat 1 goes through the lock.

Starting with the stage shown, which one of the following is the correct order of operation of gates and valves?

- A open valve II open gate II close gate II close valve II open valve I open gate I
- **B** open valve I open gate II close gate II close valve I open valve II open gate I
- C open valve II open gate I close gate I close valve II open valve I open gate II
- **D** open valve I open gate I close gate I close valve I open valve II open gate II

#### **Question 21**

For Boat 1 to move through the lock downstream and Boat 2 to move through the lock upstream, how many times does the lock need to be filled to level P?

- A once whichever boat moves first
- **B** twice whichever boat moves first
- **C** once if Boat 1 moves first, but twice if Boat 2 moves first
- **D** twice if Boat 1 moves first, but once if Boat 2 moves first

# **Question 22**

Starting with the situation shown in Figure 1, for both boats to pass through the lock, starting with Boat 2, which one of the following is the required order of operation of the valves?

- A open valve II close valve II open valve I
- **B** open valve I close valve I open valve II
- **C** open valve II close valve II open valve I open valve II
- **D** open valve I close valve I open valve II open valve I

#### Questions 23 and 24

The **Higher Education Contribution Scheme**, or **HECS**, is a way of funding higher education through charging fees to students. The fees can be paid at the time of taking a course or they can be paid later when a student has graduated and is earning a certain level of income.

Questions 23 and 24 below are from a debate about the topic that:

# The HECS is a bad system.

# **Question 23**

Choose the alternative (A - D) that best describes the relationship of the following statement to the debate about HECS:

#### Tertiary education is more challenging than secondary education.

The statement

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

# **Question 24**

Which one of the alternatives (A - D) best rebuts the following statement?

#### Higher education is a right.

- **A** Higher education is a privilege.
- **B** HECS relieves students of fees while they are students.
- **C** Higher education is not the only way people can make valuable contributions to our country.
- **D** Dropout rates are a serious problem for higher education. HECS encourages students to think seriously before beginning a higher education course.

#### Questions 25 - 29

Over recent years there has been a trend for car manufacturers to replace the spare wheel (and tyre) with a specially designed *space-saver* wheel. A space-saver wheel is smaller than a standard wheel and so is easier to store.

Figure 1 shows the results of a braking test for vehicles fitted with four standard wheels (white vehicles), or three standard wheels and one space-saver wheel (dark vehicles).

• In this braking test, it is assumed that vehicle safety depends only on stopping distance: the shorter the stopping distance, the safer the vehicle.





# **Question 25**

Which statement is best supported by the data for vehicles braking from 80 km/h?

- A Small cars fitted with a space-saver wheel are the least safe.
- **B** Small cars with standard wheels are less safe than large cars with a space-saver wheel.
- **C** Large four-wheel-drives with standard wheels are safer than large cars with standard wheels.
- **D** Mid-size four-wheel-drives fitted with a space-saver wheel are less safe than large four-wheel-drives fitted with a space-saver wheel.

Of the four types of vehicle braking from 80 km/h, compared with any one fitted with four standard wheels, any one fitted with a space-saver wheel

- A always stops in a lesser distance.
- **B** always stops in the same distance.
- **C** always stops in a greater distance.
- **D** stops in a greater or lesser distance, depending on the type of vehicle.

#### **Questions 27 – 29 refer to the following additional information:**

Figure 2 indicates the results of a cornering test for vehicles fitted with four standard wheels or with three standard wheels and one space-saver wheel.

• In this cornering test, it is assumed that vehicle safety depends only on the speed at which a vehicle begins to skid: the higher the speed, the safer the vehicle.



# **Cornering test**

Figure 2

When cornering,

- A a large four-wheel-drive with standard wheels is safer than a large car with standard wheels.
- **B** a mid-size four-wheel-drive with standard wheels is safer than a large car with standard wheels.
- **C** a small car fitted with a space-saver wheel is safer than a large car fitted with a space-saver wheel.
- **D** a mid-size four-wheel drive fitted with a space-saver wheel is safer than a large four-wheel-drive with standard wheels.

#### **Question 28**

In this cornering test, at what speed does the least safe vehicle start to skid?

- A 58 km/h
- **B** 64.5 km/h
- **C** 68 km/h
- **D** 75 km/h

#### **Question 29**

Consider both the braking test and the cornering test.

Which one of the following statements is best supported for vehicles where a standard wheel is replaced by a space-saver wheel?

The vehicle type whose stopping distance is

- A most affected, also has its cornering speed most affected.
- **B** least affected, also has its cornering speed least affected.
- **C** most affected, has its cornering speed least affected.
- **D** least affected, has its cornering speed most affected.

# Questions 30 - 32



The final frame in the cartoon aims to

- A confirm the ideas expressed in 'Magnolia Place'.
- **B** ridicule the ideas expressed in 'Magnolia Place'.
- C contradict the ideas expressed in 'Magnolia Place'.
- **D** make light of the ideas expressed in 'Magnolia Place'.

# **Question 31**

Which of the following sayings applies to the cartoon?

- A 'All's fair in love and war.'
- **B** 'What goes around comes around.'
- **C** 'You can't teach an old dog new tricks.'
- **D** 'A chain is only as strong as its weakest link.'

# **Question 32**

Which of the following statements best characterises the way motherhood is presented in the cartoon?

- A Motherhood is a difficult but rewarding task.
- **B** The idea of motherly love only survives in fiction.
- **C** Mothers bring happiness to the lives of their children.
- **D** Mothers are blamed for their children's unhappiness.

#### Questions 33 and 34

Eight students, Adam, Bethany, Chee, Dominique, Eric, Fatima, Greg and Hilary, are seated in a classroom for a test. Below is a diagram of the layout of the room, where there are eight student tables in four rows, with four seats per row.



Although there are two chairs at each table, only one student is seated at each table.

- Adam sits in row IV directly behind Fatima
- Chee sits closest to the teacher
- Dominique sits in row III, in the same seat number as Chee
- Fatima sits in Seat 2
- Eric and Greg sit in the same row, in even seat numbers
- Hilary sits in an odd seat number
- Bethany sits in the seat nearest to the door

Where could Greg be sitting?

- A Row I, Seat 2
- **B** Row II, Seat 4
- C Row III, Seat 2
- **D** Row III, Seat 4

# **Question 34**

For which one of the following is it **not** possible to determine the table at which the person sits without the last point (that Bethany sits in the seat nearest to the door)?

- A Hilary
- **B** Chee
- C Adam
- **D** Dominique

# Questions 35 – 37

A poem 'The Bean Eaters' by Gwendolyn Brooks from *The Bean Eaters* by Gwendolyn Brooks published by Harpers, 1960.

Due to copyright restriction, this material is not supplied.

- <sup>1</sup> *chipware*: kitchen crockery such as plates, cups and bowls
- <sup>2</sup> *flatware*: knives, forks, spoons

# **Question 35**

The title 'The Bean Eaters' tends to emphasise the couple's

- A poverty.
- **B** identity.
- **C** destiny.
- D age.

The second verse (lines 5-8) suggests that the couple

- A feels disconnected from their past.
- **B** cherish the desire they have to live.
- **C** are going through the motions of their existence.
- **D** do not accept that they are at the end of their lives.

# **Question 37**

Which of the following statements best describes the couple's inner life and their circumstances?

Their circumstances

- **A** mirror their inner life.
- **B** thwart their inner life.
- **C** nurture their inner life.
- **D** contrast with their inner life.

#### Questions 38-41

Many people believe that the world will gradually become warmer. For Victoria, predictions have been made about how much warming might occur over the next 70 years. These predictions range between upper and lower limits, which vary from place to place.

The maps below indicate ranges of predicted increases in average daily temperatures in different parts of Victoria over the next 70 years, according to one source. Predictions are given for summer and winter.

graph at right gives the key The corresponding to the different patterns on the maps.

For example, it is predicted that in Portland in 70 years, compared to today, average summer temperature will have increased by between 0.7 °C and 4.7 °C, approximately.



ranges of predicted average temperature increases (°C) in different areas

Assume that any temperature in a predicted range is equally likely to occur.





In Bendigo, in summer, the highest predicted average temperature increase is closest to

- **A** 1.0 °C.
- **B** 4.5 °C.
- **C** 5.0 °C.
- **D** 6.0 °C.

# **Question 39**

In Victoria, in summer, the predicted average temperature increase becomes greater from the

- **A** south-west to the north-east.
- **B** south-east to the north-west.
- **C** north-east to the south-west.
- **D** north-west to the south-east.

#### **Question 40**

According to the predictions, in 70 years

- A all of Victoria will be at least 0.7 °C warmer.
- **B** Wangaratta will be 1.5 °C warmer than Portland.
- **C** Ouyen will have a wider daily temperature range in summer than Horsham.
- **D** Bendigo will have a wider daily temperature range in summer than in winter.

# **Question 41**

In Wangaratta, in winter, the average temperature in 70 years is predicted to be

- A between 0.7  $^{\circ}$ C and 5.3  $^{\circ}$ C.
- **B** about 3.0 °C higher than it is now.
- **C** 5.3 °C higher than it is now.
- **D** no more than 5.3 °C higher than it is now.

Question 42



Hospital Patient (one of large family in poor district, given a glass of milk): "HOW FAR DOWN CAN I DRINK?"

This drawing is best described as

- A sad.
- **B** comic.
- **C** satiric.
- **D** dramatic.

# Questions 43 – 45

At a circular dinner table, people are seated and turn to talk to neighbours. If, as shown by the arrows in the figure, person I turns and talks to person VIII, and person III turns and talks to person IV, then person II has no-one to talk to, and is called a *gooseberry*. A gooseberry is a person who cannot have a conversation because the pairs of people on either side are already talking to each other.

Assume that:

- a *conversation* is always just between two people seated next to each other;
- once a conversation has started, the two people involved continue, and are not available to talk to anyone else;
- there are no empty seats at the table.





VII

IX

# Question 43

One conversation has started at this table (Figure 2).

Which one of the following extra conversations would prevent V becoming a gooseberry, no matter which other conversations started?

- A III-IV
- **B** VI-VII
- C VII-VIII
- D VIII-IX



Figure 2

# **Question 44**

Suppose nine people are seated around a table.

When the maximum number of gooseberries possible occurs, how many conversations are there?

A	one	С	three
B	two	D	four

# **Question 45**

For eleven people at a round table, what is the maximum number of gooseberries possible?

A	one	С	three
B	two	D	four

25

30

# **UNIT 16**

#### Questions 46-49

In the following a critic comments on a Rap song by Jehst.

Some songs are strong because they have a catchy or haunting tune and the lyrics do not matter much. In Rap music the words are fundamental to the point where the words are the music. Take the following example from a song by Jehst.

My words form pictures	5
Jigsaws built from torn scriptures	
A warped image	
A collage of small figments	
Inter-related	
Creative with raw English	10
I walk with born sinners who talk business	
Subs and permanent fixtures	
Medicine man sippin elixirs	
Wettin my lips and lickin the Rizlas	
Listening to enemy transmissions	15
Sittin here pickin the splinters out of my flesh	
The fresh script inker	
Indica stick sticky fingers	
With no-one to discipline the infants	
Walking to the ledge	20
I stay nimble as ninjas	
My pen nib inches	
Closer and closer	

This is a very deliberate and poetic use of language. It is not formal or traditional language (or the language of Writing) but in other ways it is quite conventionally poetic. There is an irregular but strong rhythm to the language, and the rhythm is emphasised by some strong rhymes and half rhymes.

The singer is well aware of the way he is using language. It is, as we are told, a 'collage' rather than a story, but at the same time the song is situated in a world and offers a reaction to that world. At its best, the song is a mysterious collage, but at its worst it can be mysterious to the point of being incomprehensible.

#### **Question 46**

The critic suggests that in Rap

- A music is more important than words.
- **B** words are more important than music.
- **C** music is not more important than words.
- **D** words are not more important than music.

The critic sees the language of the song as 'deliberate' (line 24) in that it is

- A informal.
- **B** composed.
- **C** traditional.
- **D** unconventional.

# **Question 48**

The lyrics of the song are best described as

- A a story.
- **B** philosophic.
- C a discussion.
- **D** atmospheric.

# **Question 49**

A full rhyme is where the final vowel sound of a word (a, e, i, o, u), and any following consonant (i.e. **not** a vowel), are the same (e.g. fine/wine). A half rhyme is where the final consonant, but not the final vowel, are the same.

Which one of the following is a half rhyme?

- A ledge/ninjas
- **B** fixtures/elixirs
- **C** image/figments
- **D** pictures/scriptures

#### Questions 50 – 52

As Internet communication costs fall, the number of people with Internet connection rises. Figures 1 and 2 below represent possible patterns of interaction that may occur as more people communicate over the Internet.

Figure 1



Figure 2



# **Question 50**

Figure 1 suggests that increased Internet connectivity produces more interactions that are

- A local.
- **B** diverse.

- **C** fragmented.
- **D** distant, yet specific.

#### **Question 51**

Figure 2 shows what happens when Internet communication becomes

A random.	С	targeted.
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**B** inclusive. **D** far-reaching.

# **Question 52**

Figure 1 only.

Figure 2 only.

Α

В

The idea of a 'global village' is consistent with

- **C** both Figure 1 and Figure 2.
- **D** neither Figure 1 nor Figure 2.

#### Questions 53 and 54

Judy has five containers of unidentified powders in front of her. She also has a list of the properties of the five powders, but she does not know which powder is which. To test the powders, Judy has a magnet, a beaker of water and a sieve that allows only very small particles to pass through.

	Particle size	Soluble in water	Magnetic
Powder 1 Powder 2 Powder 3 Powder 4 Powder 5	Large Very small Very small Large Very large	Yes Yes No Yes No	No No Yes No

Judy wants to identify the powders.

# **Question 53**

How could Powder 1 be distinguished from the others using only one of the tests on each powder?

- **A** With a sieve.
- **B** With a magnet.
- **C** With the solubility test.
- **D** Powder 1 cannot be distinguished with only one of the three tests.

# **Question 54**

The five powders are accidentally mixed. Judy first uses a magnet to remove some of the mixture. Then she uses the sieve on the remainder and collects the powders that pass through the sieve. Finally, she takes the mixture of powders that passed through the sieve and adds water.

Which of the following is the best conclusion?

- A The first powder to be removed was Powder 5.
- **B** In the mixture that she sieves, Powder 4 will remain in the sieve.
- **C** In the mixture that she puts into the water, Powder 4 will dissolve and Powder 3 will not.
- **D** The only two powders not separated in some way during the experiment are Powders 1 and 5.

#### Questions 55 - 58

The battle at Gettysburg between the armies of the North and the South is considered a turning point in the American Civil War. After the battle there was a ceremony in 1863 to dedicate a cemetery on the battlefield. A great orator of the time, Edward Everett, made a two-hour speech. Abraham Lincoln, the President of the United States, spoke after Everett and summarised the war in the following speech of two minutes, known as the Gettysburg Address.

Four score and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal. Now we are engaged in a great civil war, testing whether that nation or any nation so conceived and so dedicated can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field as a final resting-place for those who here gave their lives that that nation might live. It is altogether fitting and proper that we should do this. But in a larger sense, we cannot dedicate, we cannot consecrate, we cannot hallow this ground. The brave men, living and dead who struggled here have consecrated it far above our poor power to add or detract. The world will little note nor long remember what we say here, but it can never forget what they did here. It is for us the living rather to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us - that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion — that we here highly resolve that these dead shall not have died in vain, that this nation under God shall have a new birth of freedom, and that government of the people, by the people, for the people shall not perish from the earth.

The next day the Chicago *Sun-Times* observed of Lincoln's speech: 'The cheek of every American must tingle with shame as he reads the silly, flat and dishwatery utterances of the man who has to be pointed out to intelligent foreigners as the President of the United States.'

Lincoln himself commented to his bodyguard after his brief speech, 'Lamon, that speech won't scour<sup>1</sup>'.

<sup>1</sup> scour: to scour is to rub hard, especially with a rough material for cleansing

#### **Question 55**

Lincoln's speech is best described as

- A focused on the past.
- **B** focused on the future.
- **C** practical rather than philosophic.
- **D** philosophic rather than ceremonial.

Which one of the following uses language most poetically?

- **A** Four score and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty and dedicated to the proposition that all men are created equal.
- **B** We have come to dedicate a portion of that field as a final resting-place for those who here gave their lives that that nation might live.
- **C** But in a larger sense, we cannot dedicate, we cannot consecrate, we cannot hallow this ground.
- **D** It is for us the living rather to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced.

# **Question 57**

The Chicago Sun-Times saw Lincoln's speech as

A	eloquent.	С	aggressive.
B	passionate.	D	disgraceful.

#### **Question 58**

Lincoln's comment to his bodyguard:

'Lamon, that speech won't scour'

is best described as

- A poetic.
- **B** exalted.

- **C** everyday.
- **D** eloquent.

#### Questions 59 – 62

Placemats can be made from flat pieces of wood arranged in the pattern shown in this figure. The pieces are labelled with numbers from 1 to 7 in the figure. Pieces 1 and 2 are square and the same size, one *square unit*. The rest of the pieces are drawn to the same scale.

In making a mat, a *1-piece* is put down first, then the two *2-pieces*, then the two *3-pieces*, then the two *4-pieces*, and so on.

Mats of different sizes and shapes can be made following the pattern.



The mat shown in the figure is square in outline. The last pieces added when making this particular mat are 7-pieces. Because the 7-pieces were put down last, the mat in the figure is called a *Size* 7 mat.

#### **Question 59**

Which sort of pieces when added last will always produce a mat having a rectangular (not square) outline?

- A even-numbered but not odd-numbered pieces
- **B** odd-numbered but not even-numbered pieces
- C both even-numbered and odd-numbered pieces
- **D** neither even-numbered nor odd-numbered pieces

Josh finished a mat by adding two 8-pieces.

The area of the mat after the two 8-pieces were added was

- A 72 square units.
- **B** 64 square units.
- C 63 square units.
- **D** 56 square units.

# **Question 61**

The area of a *Size n* mat, where *n* is an even number, is given by

**A**  $(n-1) \times (n+1)$  **B**  $n \times (n+1)$  **C**  $(n-1)^2$ **D**  $(n+1)^2$ 

#### **Question 62**

What is the perimeter of the mat after the two 5-pieces are added?

- A 16 units
- **B** 20 units
- C 25 units
- **D** 30 units

# Questions 63 and 64

Use the following definitions to answer the questions below.

Democracy is rule by all the people.	Oligarchy is rule by a small, elite group.
<i>Meritocracy is rule by the most talented and capable.</i>	Aristocracy is rule by those born into a privileged class.

# **Question 63**

The definitions suggest that

- A meritocracy is more democratic than aristocracy.
- **B** aristocracy is more democratic than meritocracy.
- **C** aristocracy can be democratic but oligarchy cannot.
- **D** oligarchy can be democratic but aristocracy cannot.

# **Question 64**

Which of the following forms of government are closest to each other?

- A oligarchy and aristocracy
- **B** democracy and oligarchy
- **C** aristocracy and democracy
- **D** meritocracy and aristocracy

# **Question 65**

Cartoon entitled 'Theatre of the self' by Sempé from *The New Yorker Cartoon Album 1975–1985*, Penguin Books Ltd, Harmondsworth, 1986.

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The character in this cartoon

- A has a split personality.
- **B** sees no drama in his life.
- **C** sees his own life as a drama.
- **D** takes an objective view of himself.

#### Questions 66 - 68

One way to save water around the home is to recycle water from washing machines onto the garden. However, some washing machine detergents are harmful to plants or the environment because they contain too much sodium or phosphorus.

Twenty-five clothes-washing detergents were tested to determine how much sodium and phosphorus they contain (Figure 1). Detergents are identified by a number, with numbers for powder detergents in white boxes and numbers for liquid detergents in black boxes.

Concentration of sodium is given as total grams per standard wash, where a standard wash is 150 litres of water. The concentration of phosphorus is given as milligrams per litre (of a standard wash).

1 gram = 1000 milligrams



Figure 1

Suppose it was recommended that sodium should be less than or equal to 50 grams per standard wash and phosphorus less than 25 milligrams per litre (of a standard wash).

How many of the detergents would satisfy this recommendation?

- A nine
- **B** eight
- C seven
- **D** six

#### **Question 67**

Which one of the following statements is best supported by the information provided?

- A Sodium is more harmful than phosphorus.
- **B** Sodium and phosphorus are equally harmful.
- **C** In general, powder and liquid detergents are likely to be equally harmful.
- **D** In general, liquid detergents are likely to be less harmful than powder detergents.

# **Question 68**

Phosphorus in small quantities is used to fertilise plants. Suppose you wanted to supply as much phosphorus as possible from your washing water (a standard wash), but no more than 50 grams of sodium.

Which of the following detergents would you use?

- A Detergent 19
- **B** Detergent 16
- C Detergent 14
- **D** Detergent 12

#### Questions 69 and 70

The critics Jane Clark and Bridget Whitelaw offer the following comments on the painting entitled Shearing the Rams by Tom Roberts.

The subject of shearing had been treated pictorially by earlier colonial painters, photographers and popular illustrators. What made *Shearing the Rams* absolutely exceptional in 1890 was its grand scale: Roberts' conscious heroisation of pastoral labour.

James Smith, as art critic of the *Argus* newspaper and one of the Melbourne Gallery trustees, considered that the painting was too naturalistic and therefore did not embody those 'universal' qualities necessary to great art. Roberts responded that the subject was 'noble and worthy enough if I could express the meaning and spirit — of strong masculine labour, the patience of animals whose year's growth is being stripped from them for men's use, and the great human interest of the whole scene'.

His serious academic treatment elevates essentially popular subject matter to the status of 'High Art'. Indeed Roberts' great achievement in *Shearing the Rams* is his balance between the particular and the typical, the individual and the universal.

15

5

10

#### **Question 69**

James Smith found Shearing the Rams 'too naturalistic' (line 6) because it

- A focuses on animals.
- **B** is an artificial scene.
- **C** is an everyday scene.
- **D** is a scene of human interest.

# **Question 70**

In the terms of the passage, a 'universal' (line 15) work of art would be

- A a narrative.
- **B** generalised.
- **C** mythological.
- **D** individualised.



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#### **END OF QUESTION BOOK**