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 $(\mathbf{A} - \mathbf{D})$ 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.

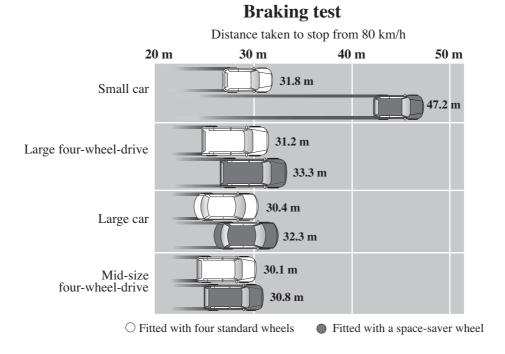


Figure 1

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.

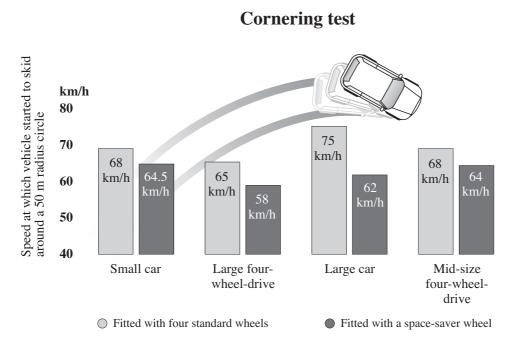


Figure 2

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.'

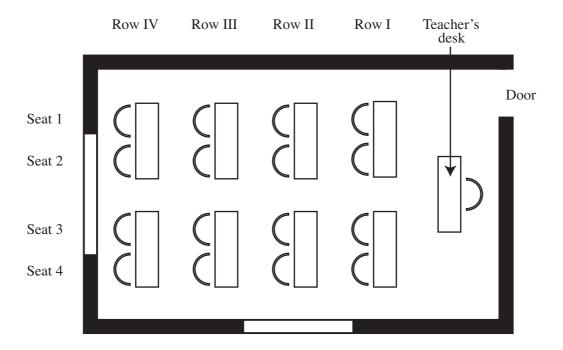
Question 32

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

Ouestions $35 - 3$	1

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.

Question 35

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

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

¹ *chipware*: kitchen crockery such as plates, cups and bowls

² flatware: knives, forks, spoons

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.

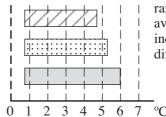
Questions 38 - 41

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.

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

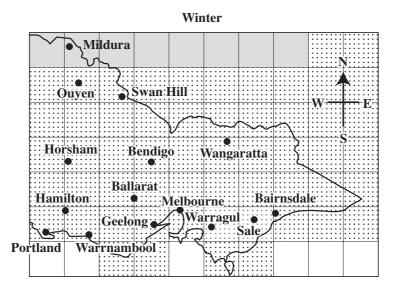
For example, it is predicted that in Portland in 70 years, compared to today, average summer temperature will have increased by between 0.7 °C and 4.7 °C, approximately.



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

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

Ouyen Swan Hill Horsham Bendigo Wangaratta Ballarat Hamilton: Melbourne Bairnsdale Geelong Warragul Sale Portland Warrambool:



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 °C and 5.3 °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.

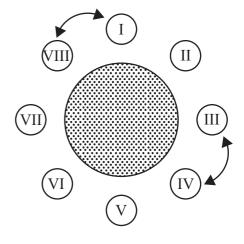


Figure 1

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

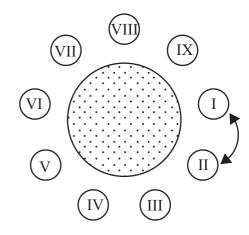


Figure 2

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

C three

B two

D four

Question 45

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

A one

C 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

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

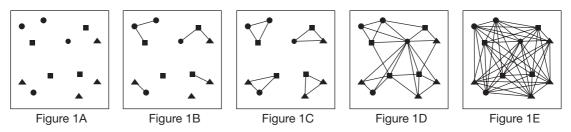
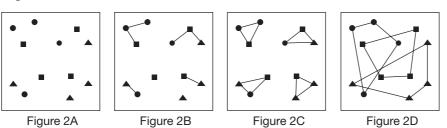


Figure 2



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.B inclusive.C targeted.D far-reaching.

Question 52

The idea of a 'global village' is consistent with

A Figure 1 only.
B Figure 2 only.
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	Large	Yes	No
Powder 2	Very small	Yes	No
Powder 3	Very small	No	No
Powder 4	Large	Yes	Yes
Powder 5	Very large	No	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 scour¹'.

1 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.	C	aggressive.
В	passionate.	D	disgraceful.

Question 58

Lincoln's comment to his bodyguard:

'Lamon, that speech won't scour'

is best described as

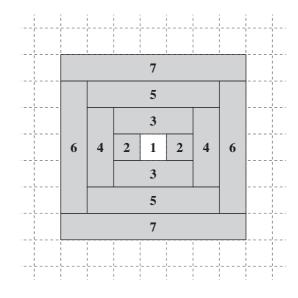
A poetic.B exalted.C everyday.D eloquent.

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

- $\mathbf{A} \quad (n-1) \times (n+1)$
- **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?

- 16 units A
- В 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.
Meritocracy is rule by the most talented and capable.	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

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

Due to copyright restriction, this material is not supplied.

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

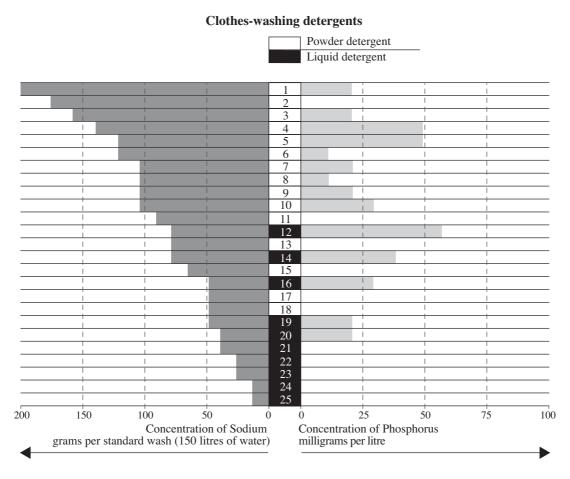


Figure 1

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

5

10

15

UNIT 24

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.

Question 69

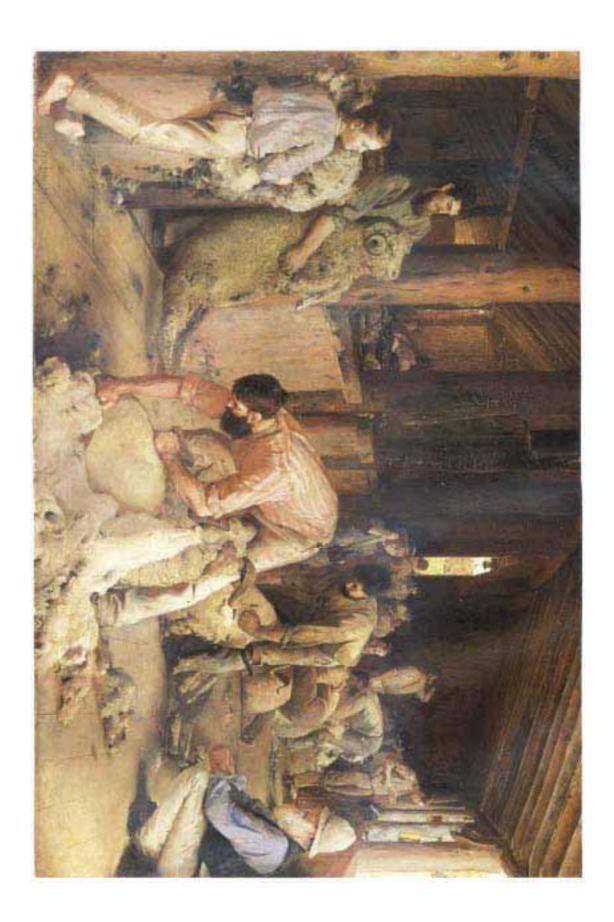
James Smith found Shearing the Rams 'too naturalistic' (line 6) because it

- 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.



ACKNOWLEDGMENTS: SONY Corporation, The virtual pet is based on AIBO whose image is reprinted with the kind permission of the SONY Corporation; Marshall van Alstyne, for the extract 'Electronic Communication - Connectivity and Communication Cost', available at http://ssrn.com; Gillian Bouras and Penguin Books, for the extract from A Foreign Wife, Penguin Books, Ringwood, 1980; Gwendolyn Brooks, 'The Bean Eaters', http://www.poets.org/poems.cfm?prmID=2036, originally printed in Brooks, G. The Bean Eaters published by Harpers, 1960; Clarke, J. and Whitelaw, B., for the comments on the 'Shearing of the Rams' painting. Golden Summers, Heidelberg and Beyond, International Cultural Cooperation of Australian Limited, 1985. The National Gallery of Victoria for the reproduction of the painting The Shearing of the Rams by Tom ROBERTS, born Great Britain 1856, arrived in Australia 1869, died 1931 (Shearing the rams 1888-90, oil on canvas on composition board, 122.4 × 183.3 cm, Felton Bequest, 1932); Doran, A. and Grafton Books, for cartoon 'How far down can I drink?', The Punch Cartoon Album: 150 Years of Classic Cartoons, Grafton Books, London, 1980; Jones, C., Williamson, R. and The Age, for the extract from How safe are your space-saver tyres?, The Age newspaper, Drive, pages 6-7, Thursday, 29 April, 2004; Maud Newton, Maisonneuve, http://www.maisonneuve.org/article.php?article_id=411; Patterson, R.A. Reuse Initiatives Start in the Supermarket. NSW Country Convention. Institution of Engineers Australia. 6-8 August, 1999. Northern Group, Institution of Engineers Australia, Armidale. A copy of the full document can be found on: http://www.lanfaxlabs.com.au/publications.html; Sempé and Penguin Books Ltd, for the cartoon 'Theatre of the self', The New Yorker Cartoon Album 1975-1985, Penguin Books Ltd, Harmondsworth, 1986; Posy Simmons and St Edmundsbury Press Ltd, for the cartoon 'Mommas' fault', Pick of Posy, St Edmundsbury Press Ltd, Suffolk, 1982.

END OF QUESTION BOOK