



Board of Senior Secondary Studies

ACT Scaling Test

Sample Questions

2013

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Sample Questions – Multiple Choice

Unit 1

Questions 1 – 4

In the following passage, adapted from *Reinventing Australia*, social psychologist Hugh Mackay offers a view about childhood in the 1990s.

PASSAGE

The idea of childhood as a free, innocent and self-contained stage of life is pretty much a twentieth century invention. Before then, children tended to be regarded as junior adults who were waiting in the wings to assume the mantle of adulthood. Certainly, the idea that ‘teenagers’ might still be indulged like children is a very modern concept.

In the 1990s we seem to be moving towards yet another redefinition of childhood, under the direct influence of the redefinition of gender roles, marriage and the family. In family structures, which are more transient than ever before and which are, increasingly, able to rely on only one parent as a stable reference point for children, the nature of childhood itself is bound to be affected. 5

In some families children are now more indulged, cosseted and protected because of the insecurity in the breast of a divorced parent. In other families, children are left much more to their own devices because of the logistics of contemporary urban life. 10

Parents frequently remark that the level of vigorous debate within families about children’s rights takes them by surprise and causes them to question whether life wasn’t simpler when children had more acquiescent attitudes towards their parents. Perhaps every generation has complained about the lack of discipline and respect shown towards it by the following generation but, today, that situation does seem exaggerated by the sense that, as the family itself is being redefined, patterns of childhood behaviour are changing. Particularly under the influence of widespread family breakdown, many children are simply being forced to become more assertive at an earlier age. Parents may express a certain nostalgia about their own childhood; they may hanker after what they now see as the simple pleasures of an earlier age; they may fleetingly wish that their children could enjoy the same freedoms and the same innocence as they did. But present realities seem harsh: parents cannot easily see a way back to such a simple concept of childhood. The other redefinitions in their lives have been so significant — and so permanent — that they have left a redefinition of childhood in their wake. 15 20 25

- 1 In lines 1 – 4 the writer suggests that teenagers are
- A idle parasites on society
 - B disrespectful and selfish
 - C over-protected from the harsh realities of life
 - D subjected to a great amount of stress and pressure.
- 2 In lines 10 – 12 the writer suggests that divorce and modern urban life have caused children to be
- A over-indulged or neglected
 - B confused about their identity
 - C uncertain about how to behave
 - D overly dependent on their parents.
- 3 The writer suggests that children are ‘left much more to their own devices’ (lines 11 – 12) because parents are
- A selfish and egoistic
 - B tolerant and trusting
 - C liberal and permissive
 - D pressured and distracted.
- 4 The writer views the redefinition of childhood as a
- A natural outcome of progress
 - B consequence of social changes
 - C result of changed philosophies of childhood
 - D reaction against the rigidity of childhood in the past.

UNIT 2

Questions 5 – 9

Figure 1 gives an estimate of the size of the workforce required to build a pyramid that is 150 metres high and has a square base with 300 metre long sides (similar to the Great Pyramid of Giza built for the Egyptian Pharaoh Khufu about 2500 BC). In the figure, the number of workers needed for each 20 metres of building height is given.

For convenience, the building of the first 20 metres is referred to as Stage 1, the building of the next 20 metres is referred to as Stage 2, and so on.

In the figure, the construction is divided into two sets of tasks:

- 1 *Quarrying* (cutting) the blocks and *other tasks*.
- 2 *Hauling* the blocks (horizontally) from the quarry and *lifting* them (vertically) into place on the growing pyramid.

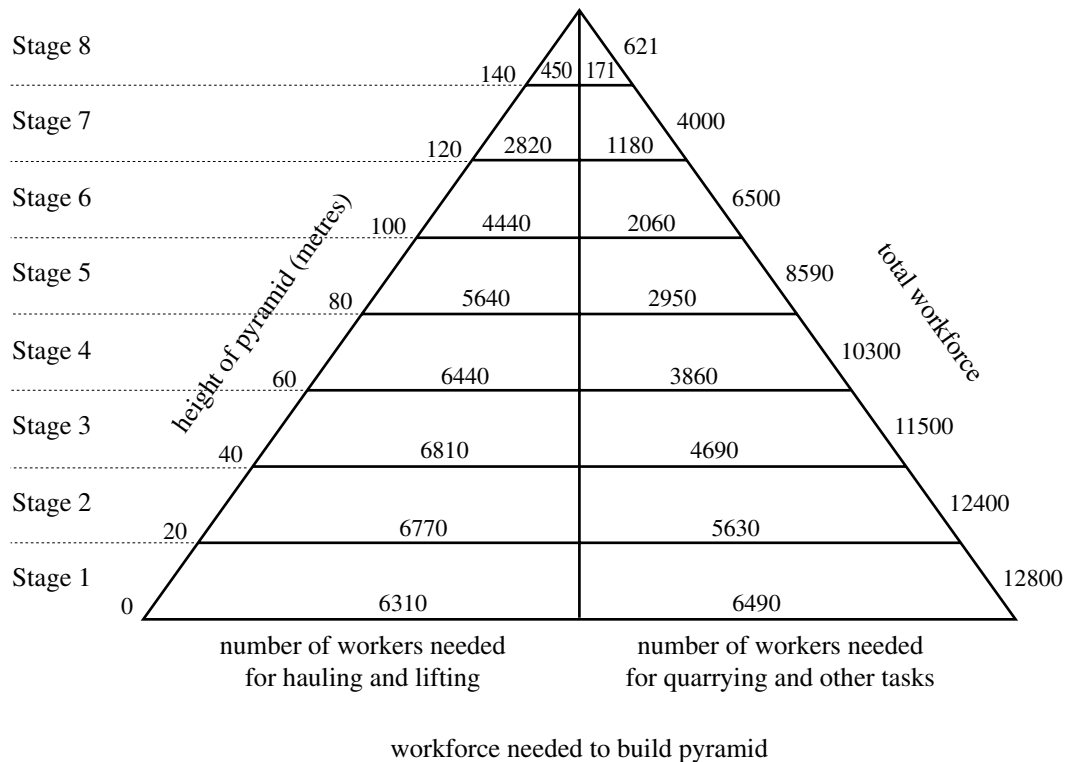


Figure 1

Note:

- Figure 1 is not drawn to scale;
- the pyramid has a square base and a square cross-section at each stage;
- the length of a side of the base of the pyramid is 300 metres and its height is 150 metres.

Question 5

From stage to stage, as the pyramid gets higher from the start to finish, there is always

- A a decrease in the number of people needed for hauling and lifting.
- B an increase in the number of people needed for hauling and lifting.
- C a decrease in the number of people needed for quarrying and other tasks.
- D an increase in the number of people needed for quarrying and other tasks.

Question 6

How many people were needed for hauling and lifting in the stage when the pyramid was increased in height from 40 to 60 metres?

- | | |
|---------|--------|
| A 12400 | C 6810 |
| B 11500 | D 6770 |

Question 7

Compared with the number of people needed for quarrying and other tasks for Stage 1, the number needed for quarrying and other tasks for Stage 5 was closest to

- | | |
|----------------|--------------|
| A one fifth. | C one third. |
| B one quarter. | D one half. |

Question 8

Of the following, the greatest difference between the number of people needed for hauling and lifting and the number of people needed for quarrying and other tasks occurs in

- | | |
|------------|------------|
| A Stage 4. | C Stage 6. |
| B Stage 5. | D Stage 8. |

Question 9

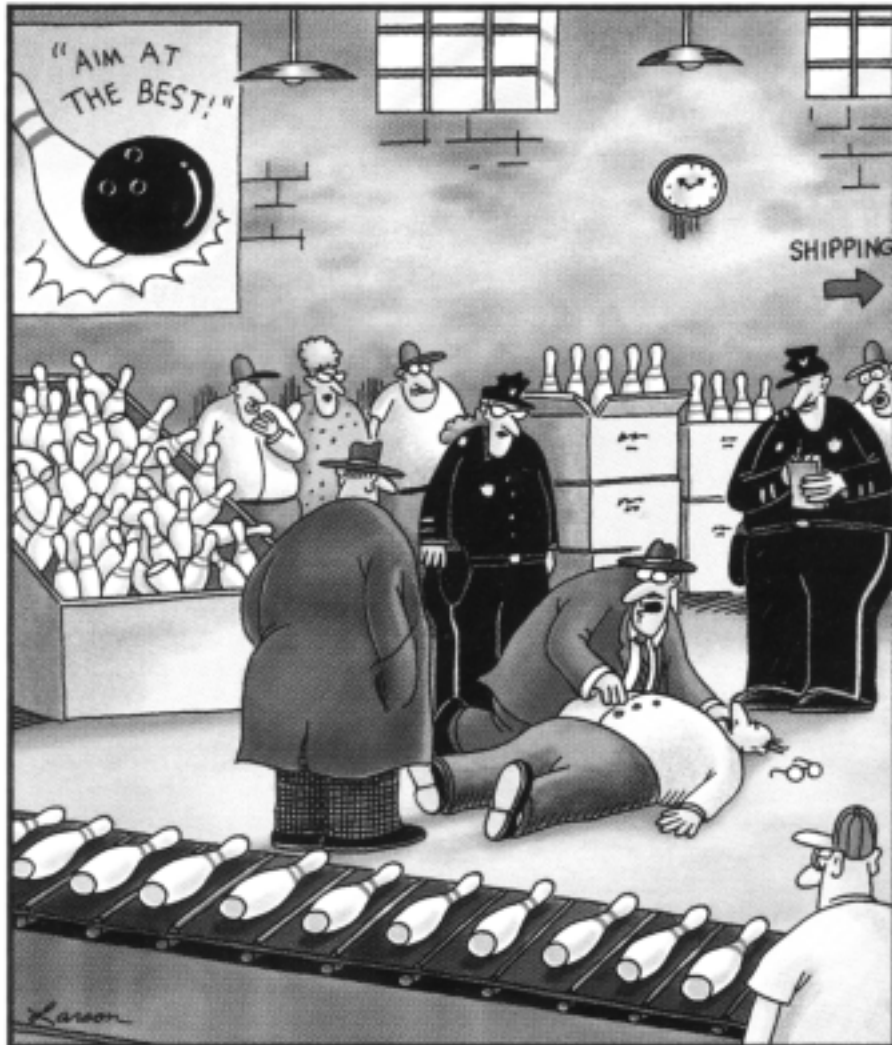
For which stage is the value of the fraction below greatest?

$$\frac{\text{number of people needed for hauling and lifting}}{\text{number of people needed for quarrying and other tasks}}$$

- | | |
|-----------|-----------|
| A Stage 1 | C Stage 5 |
| B Stage 2 | D Stage 8 |

UNIT 3

Question 10 - 11



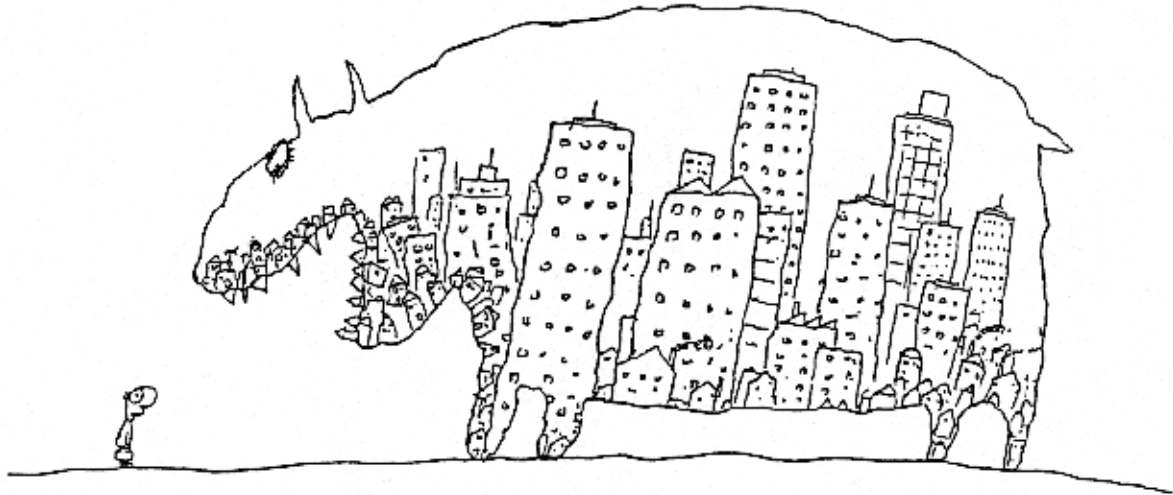
“Struck from behind, all right ... and from my first examination of the wound, I’d say this was done by some kind of heavy, blunt object.”

Question 10

The joke in this cartoon is that the detective is

- A jumping to a conclusion.
- B overlooking the obvious.
- C oversimplifying the situation.
- D making an unwarranted assumption.

Question 11



Cartoon by Michael Leunig from *The Age*, Melbourne

- 11 This cartoon suggests that for people the urban environment is
- A stimulating and challenging
 - B civilised and sophisticated
 - C hostile and destructive
 - D critical and callous.

UNIT 4

Questions 12 – 14

A telephone company, *Phonewise*, offers three different mobile phone plans to customers.

- *Premium* plan customers pay a rental of \$10 per month plus 20 cents per call;
- *Timewise* plan customers pay a rental of \$20 per month plus 15 cents per call; and
- *Business* plan customers pay a rental of \$30 per month plus 10 cents per call.

Abby draws some graphs, including Figure 1, to help her work out the cost for various plans.

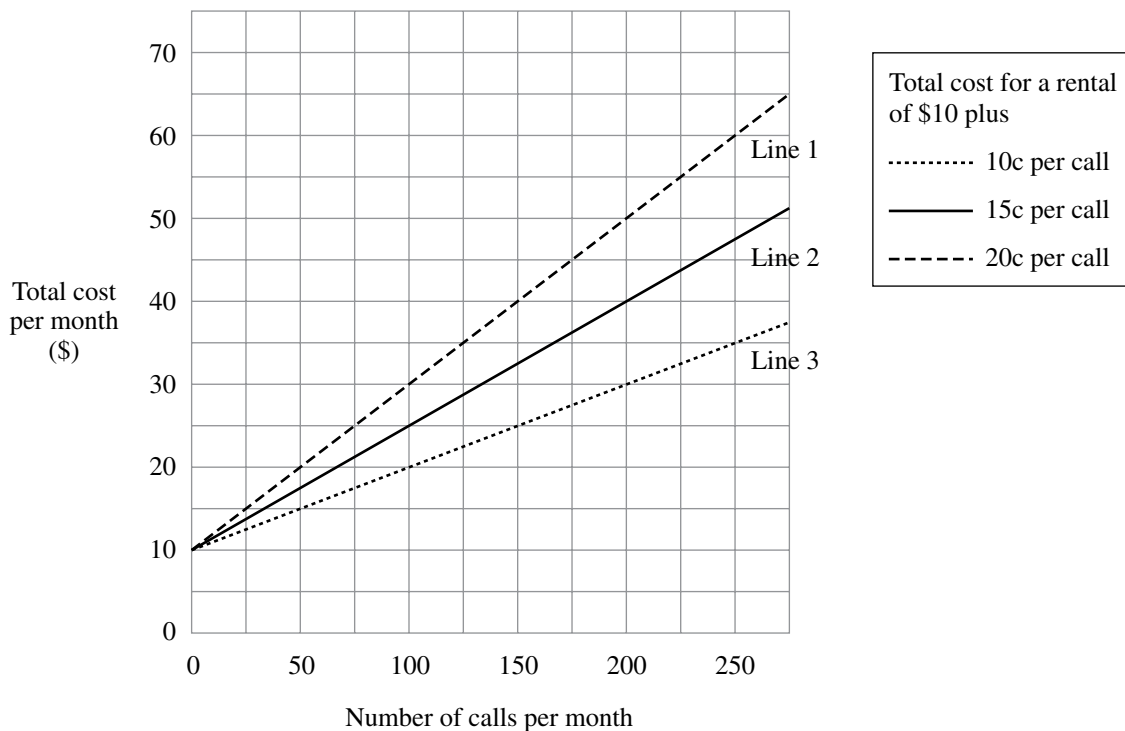


Figure 1

Note:

- Total cost equals the rental cost plus the cost of the calls.

Question 12

The total cost per month for Premium plan customers who make 100 calls is

- A \$10.
- B \$20.
- C \$25.
- D \$30.

Question 13

Which line in Figure 1 represents the Business plan?

- A Line 1
- B Line 2
- C Line 3
- D None of these three lines represents the Business plan.

Question 14 refers to the following additional information:

Abby draws the graphs (I, II, III and IV) shown in Figure 2. The graphs in Figure 2 are drawn in proportion to Figure 1 and have the same axes.

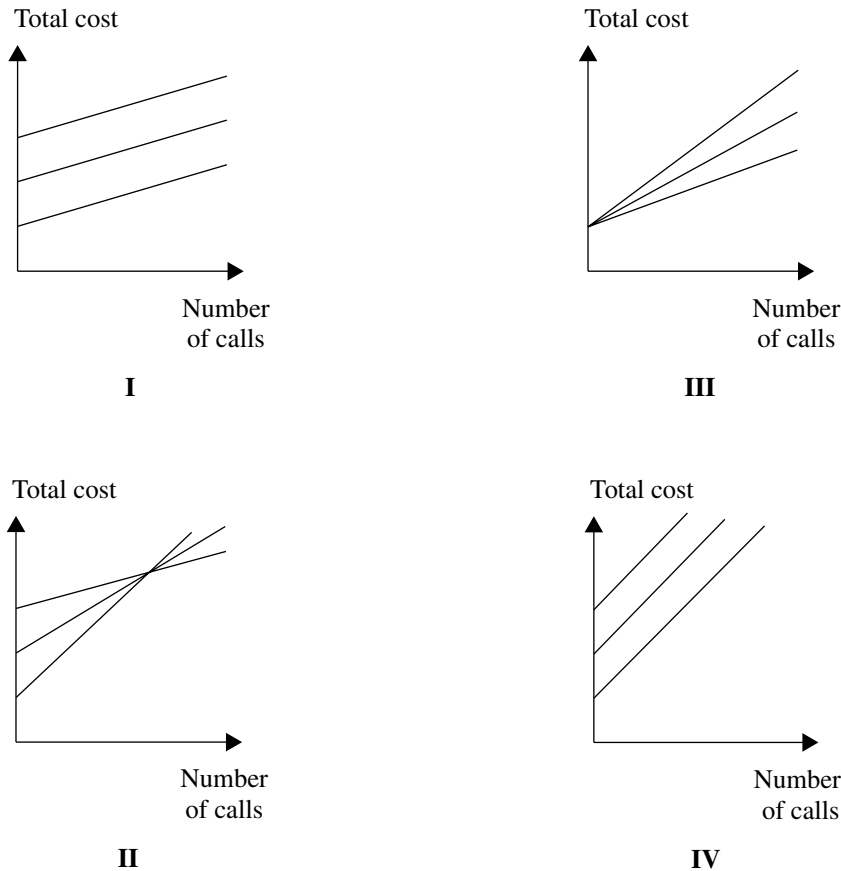


Figure 2

Question 14

Which graph best represents the total cost per month for three different rental costs at a charge of 10 cents a call?

- | | |
|------|-------|
| A I | C III |
| B II | D IV |

Unit 5

Questions 15 – 18

In December 1989 a national telephone poll asked 1000 Australians the following questions and obtained the results below.

We are now very close to the 1990s. The sixties were generally years of economic prosperity in Australia, while the seventies and eighties were more difficult. How do you see the 1990s?

First, in general, do you think that living standards in Australia will: improve during the nineties, remain about the same as now, or fall?

And what do you think about world prospects for the nineties? Are we likely to see: an increase in international conflict and instability, the situation remaining generally as it is now, or a reduction in international conflict and instability?

How likely do you think it is that there will be a major war involving any of the superpowers in the 1990s? Would you say it was: very likely, quite likely, quite unlikely, very unlikely?

And finally, do you think that, for you personally, life in the 1990s will be: better, worse, or about the same as it is now?

WHAT THE 1990s HOLD

*Figures in percentages rounded to nearest whole number
(1979 figures in brackets)*

LIVING STANDARDS IN THE 1990s

	Total	Men	Women	Blue-collar	White-collar
Will improve	19 (18)	20	18	24	18
Will stay the same	32 (43)	30	35	30	31
Will fall	47 (38)	49	45	46	49
Don't know	2 (2)	1	2	-	2

INTERNATIONAL INSTABILITY IN THE 1990s

Increase in conflict	23 (66)	17	28	21	23
Situation as now	29 (23)	29	30	33	27
Reduction in conflict	44 (8)	51	37	42	48
Don't know	4 (3)	3	5	4	1

MAJOR WAR BETWEEN SUPERPOWERS IN THE 1990s

Very likely	3 (19)	3	3	2	3
Quite likely	15 (37)	9	22	14	15
Quite unlikely	42 (26)	38	47	40	45
Very unlikely	37 (17)	49	26	43	36
Don't know	2 (2)	1	3	1	1

PERSONAL LIFE IN THE 1990s

	Total	Men	Women	18 – 24	25 – 39	40 – 54	55 plus
Better	39 (32)	46	32	55	49	38	18
Worse	10 (15)	9	11	9	8	13	11
About the same	50 (52)	43	56	36	41	48	69
Don't know	1 (1)	2	1	-	2	1	2

- 15** For which one of these alternatives is the size of the difference between the responses of the blue- and white-collar workers greatest?
- A** international instability as now
 - B** living standards will improve
 - C** major war quite unlikely
 - D** major war very unlikely.
- 16** In the question about personal life expectations, the age group with the strongest response to the most negative alternative is
- A** 18 – 24
 - B** 25 – 39
 - C** 40 – 54
 - D** 55 plus.
- 17** In 1989, the largest total response for the most pessimistic alternative was given to the question on
- A** living standards
 - B** major war
 - C** personal life
 - D** international instability.
- 18** Comparing the responses of blue- and white-collar workers to the most optimistic alternative for each question it seems
- A** blue-collar workers always have the more negative expectations
 - B** white-collar workers always have the more negative expectations
 - C** there is a consistent pattern in the responses of the blue- and white-collar workers
 - D** there is no consistent pattern in the responses of the blue- and white-collar workers.

Unit 6

Questions 19 – 22

Harry and Meg have three daughters: Maria, Anna and Roberta. Maria has four children, Anna has three, and Roberta has two.

Harry and Meg have just won a fortune in a lottery. They decide to keep half of it and to give the other half to Maria, Anna and Roberta and their children. They ask their daughters to suggest a method for sharing their half of the total prize money among themselves and their children.

- Maria proposes that the money be divided equally among the three families and that each of the sisters then gives herself and each of her children an equal share.
- Anna thinks that she and her sisters should receive half the money, to be divided equally among them, and that the other half should be divided equally among all their children
- Roberta believes that the money should be divided so that she, her two sisters and each of their children, all receive equal shares.

19 Using Anna's method, what fraction of the total prize money will each of the three sisters receive for herself?

A $\frac{1}{36}$

C $\frac{1}{12}$

B $\frac{1}{18}$

D $\frac{1}{6}$

20 By what fraction of the total prize money will each grandchild's share increase if Roberta's method is used rather than Anna's?

A $\frac{1}{72}$

C $\frac{1}{12}$

B $\frac{1}{36}$

D $\frac{1}{8}$

- 21** Harry and Meg choose Anna's method for distributing the prize money, which of the following will result?
- A** Roberta and her children will receive more than Anna and her children
 - B** Maria, Anna and Roberta will each receive different amounts
 - C** Maria will receive more than any of her children
 - D** Each family will receive the same total amount
- 22** Maria's proposal most likely reflects her belief that her parents should favour
- A** her over her sisters, because she has more children than either of them
 - B** her and her sisters only, without considering their grandchildren
 - C** each of their grandchildren and each of their daughters equally
 - D** the three families equally

Unit 7

Questions 23 - 29

The material in this unit is taken from a story by D.H. Lawrence called *Daughters of the Vicar*. The Vicar, Mr Lindley, is sick and Mr Massy is coming to take over his duties. Miss Mary and Miss Louisa are Mr Lindley's daughters.

PASSAGE I

The young clergyman was keenly expected. He was not more than twenty-seven, a Master of Arts of Oxford, had written his thesis on Roman Law. He came of an old Cambridgeshire family, had some private means, was going to take a church in Northamptonshire with a good stipend, and was not married. Mrs Lindley incurred new debts, and scarcely regretted her husband's illness.

5

But when Mr Massy came, there was a shock of disappointment in the house. They had expected a young man with a pipe and a deep voice, but with better manners than Sidney, the eldest of the Lindleys. There arrived instead a small, *chétif** man, scarcely larger than a boy of twelve, spectacled, timid in the extreme, without a word to utter at first; yet with a certain inhuman self-sureness.

10

'What a little abortion!' was Mrs Lindley's exclamation to herself on first seeing him, in his buttoned-up clerical coat. And for the first time for many days, she was profoundly thankful to God that all her children were decent specimens.

He had not normal powers of perception. They soon saw that he lacked the full range of human feelings, but had rather a strong, philosophical mind, from which he lived. His body was almost unthinkable, in intellect he was something definite. The conversation at once took a balanced, abstract tone when he participated. There was no spontaneous exclamation, no violent assertion or expression of personal conviction, but all cold, reasonable assertion. This was very hard on Mrs Lindley. The little man would look at her, after one of her pronouncements, and then give, in his thin voice, his own calculated version, so that she felt as if she were tumbling into thin air through a hole in the flimsy floor on which their conversation stood. It was she who felt a fool. Soon she was reduced to a hardy silence.

15

20

Still, at the back of her mind, she remembered that he was an unattached gentleman, who would shortly have an income altogether of six or seven hundred a year. What did the man matter, if there were pecuniary ease! The man was a trifle thrown in. After twenty-two years her sentimentality was ground away, and only the millstone of poverty mattered to her. So she supported the little man as a representative of a decent income.

25

* *chétif*: Weak, puny, sickly (French)

23 Mrs Lindley's initial reaction to Mr Massy is best described as being

- | | | | |
|---|---------------------------|---|-------------------------|
| A | spontaneous and emotional | C | thoughtful and critical |
| B | perceptive and positive | D | innocent and bland. |

Questions 24-29 refer to the following additional information:

In the story, Passage II comes immediately after Passage I, and refers to Mr Massy.

PASSAGE II

His most irritating habit was that of a sneering little giggle, all on his own, which came when he perceived or related some illogical absurdity on the part of another person. It was the only form of humour he had. Stupidity in thinking seemed to him exquisitely funny. But any novel was unintelligibly meaningless and dull, and to an Irish sort of humour he listened curiously, examining it like mathematics, or else simply not hearing. In normal human relationship he was not there. Quite unable to take part in simple everyday talk, he padded silently round the house, or sat in the dining-room looking nervously from side to side, always apart in a cold, rarefied little world of his own. Sometimes he made an ironic remark, that did not seem humanly relevant, or he gave his little laugh, like a sneer. He had to defend himself and his own insufficiency. And he answered questions grudgingly, with a yes or no, because he did not see their import and was nervous. It seemed to Miss Louisa he scarcely distinguished one person from another, but that he liked to be near her, or to Miss Mary, for some sort of contact which stimulated him unknown. 5 10

Apart from all this, he was the most admirable workman. He was unremittingly shy, but perfect in his sense of duty; as far as he could conceive Christianity, he was a perfect Christian. Nothing that he realised he could do for anyone did he leave undone, although he was so incapable of coming into contact with another being, that he could not proffer help. Now he attended assiduously to the sick man, investigated all the affairs of the parish or the church which Mr Lindley had in control, straightened out accounts, made lists of the sick and needy, padded around with help and to see what he could do. He heard of Mrs Lindley's anxiety about her sons, and began to investigate means of sending them to Cambridge. His kindness almost frightened Miss Mary. She honoured it so, and yet she shrank from it. For, in it all Mr Massy seemed to have no sense of any person, any human being whom he was helping; he only realised a kind of mathematical working out, solving of given situations, a calculated well-doing. And it was as if he had accepted the Christian tenets as axioms. His religion consisted in what his scrupulous, abstract mind approved of. 15 20 25

- 24** The author comments (lines 5 – 6) that 'In normal human relationship he was not there.'

Elsewhere in Passage II the author suggests that Mr Massy was

- A** aware of it, but did not care about it one way or another
- B** totally unaware of this attribute, and considered himself to be quite normal
- C** openly rather proud of this difference between himself and other human beings
- D** perhaps aware of it, and was sensitive about it as a shortcoming of his personality.

- 25** The author comments of Mr Massy's kindness that Miss Mary Lindley 'honoured it so, and yet she shrank from it'. (line 22)

He goes on to suggest that the shrinking derived from her sense that Mr Massy was

- A** hypocritical and the 'kindness' was in fact false
- B** involved personally, and manipulated people by this 'kindness'
- C** using 'kindness' merely as a means of ingratiating himself with people
- D** merely going through the motions of what he thought a clergyman ought to do.

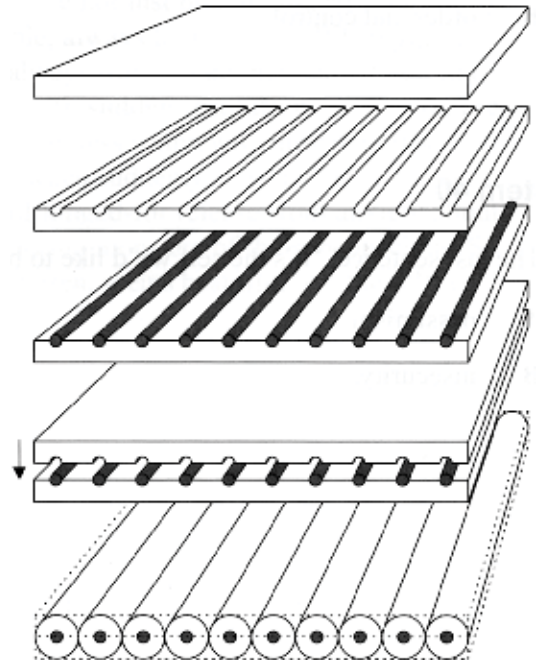
- 26 The word 'help' is used twice in paragraph 2:
'he could not proffer help.' (line 17); and
'[he] padded around with help' (line 20).
The two uses in context indicate that
- A the author has simply contradicted himself
 - B the help Mr Massy offered was not real assistance but a sham
 - C 'help' to Mr Massy was practical assistance rather than emotional support
 - D the help that Mr Massy could give was only in response to minor problems.
- 27 The first paragraph in Passage II suggests that Mr Massy's relations with Miss Mary and Miss Louisa
- A were indistinguishable from his relations with other human beings
 - B reflected an unconscious but definite need for contact with the young women
 - C were stimulated by a strong desire for intimate contact with other human beings
 - D expressed a desire for physical contact with Miss Louisa and a desire for intellectual contact with Miss Mary.
- 28 Which of the following human attributes, generally taken to be part of Christianity in a broad sense, does Mr Massy most clearly lack, on the evidence of Passage II?
- A setting a good ethical example
 - B belief in Christian teachings
 - C love of one's fellow man
 - D devotion to the Church.
- 29 Mr Massy's concept of himself, as presented in Passage II, is most clearly related to his
- A strong confidence in his intellectual ability
 - B pride in his success as a Christian minister
 - C doubt about the importance of Christian values
 - D sincere desire for close relations with other people.

Unit 8

Questions 30 – 31

Cylindrical ‘lead’ pencils are made in several steps:

- Wood is cut into slats of the required dimensions; that is, their length, breadth and thickness are such that there is minimum wastage of wood when individual pencils are cut in a later step.
- Parallel semicircular grooves are cut into the slats at regular intervals.
- A graphite cylinder is set into each groove of one slat.
- A second grooved slat (without graphite cylinders) is glued on top of the first.
- Ten pencils are cut from this ‘sandwich’.



For each finished, unsharpened pencil:

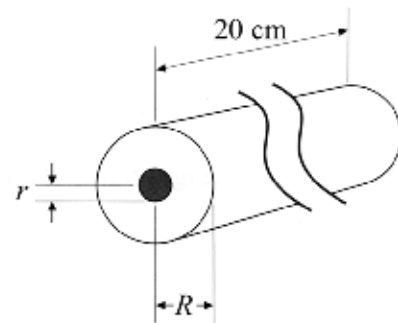
- Radius (cm) of pencil is R
- Radius (cm) of graphite cylinder is r
- Length of pencil is 20 cm.

Reminder:

Circumference of circle = $2\pi \times \text{radius}$

Volume of cylinder = $\pi \times \text{radius}^2 \times \text{length}$

Pythagoras' Theorem: $c^2 = a^2 + b^2$



- 30** The curved surface of each unsharpened pencil is painted red; the ends remain unpainted.

Which of the following gives the area, in square centimetres, of the painted surface of each pencil?

A $20\pi R$

C $22\pi R^2$

B $40\pi R$

D $22\pi R + 2\pi R^2$

- 31** Which of the following gives the volume, in cubic centimetres, of timber wasted in making each batch of ten pencils?

A $40R^2 - 10\pi R^2 + 10\pi r^2$

C $800R^2 - 200\pi R^2 - 200\pi r^2$

B $800R^2 - 200\pi R^2$

D $800R^2 - 200\pi R^2 + 200\pi r^2$

Unit 9

Questions 32-35

In his essay 'Thoughts on Australia Day' (1993) Robert Manne describes three features which he believes form the basis for his attachment to Australia: the British legacy, an egalitarian social system, and a sense of space. The extract below, adapted from the essay, focuses on the first of these features.

PASSAGE

My first choice will cause annoyance in some quarters. And yet, as the child of Central European Jewish migrants, who has spent much of his adult life in ruminations on the destructiveness of political conditions in Europe during the twentieth century, I cannot budge. My first choice is our British legacy. If Australia had been first colonised by Chinese or Spaniards or Frenchmen or Germans or Russians — and even more if for the first three-quarters of its history it had been settled overwhelmingly by immigrants from this original country of colonisation — it would be, in almost every conceivable way, a different country from the one it is now. The Britons who settled Australia brought with them, inescapably, a complex, intricate and unique civilisational pattern, which had evolved over several hundred years on the other side of the world. Non-aboriginal Australia did not begin *de novo*. It was, from the first day of settlement, several hundred years old.

The cultural baggage Arthur Phillip and those who followed him brought with them included language (in some ways the deepest inheritance of all); literature; the understanding of the rule of law; a tenacious notion of private property; distrust of the tyrannical state; belief in, and experience of, an idiosyncratic form of parliamentary government; political parties, trade unions and social clubs; a passion for sports and hobbies; social tolerance and suspicion of fanaticism; a slight feeling of superiority to foreigners; a certain Protestant sectarianism and Irish Catholic anti-establishmentarianism; a self-deprecating humour; an expectation of ample meals; little interest in cuisine. Need I go on?

Notwithstanding the anti-British edge of some versions of multicultural ideology and some rather traditional Irish anti-Britishness the foundations of Australian civilisation remain — and will remain for a very long time — stubbornly British. I am sure that, in fact if not in theory, for most immigrants from Europe, the Middle East or Asia the British foundation of Australian civilisation is one of its strongest attractions.

32 Manne suggests that non-aboriginal Australian civilisation has been fundamentally shaped by

- A the land and the indigenous people
- B the colonists and successive British immigrants
- C British control exercised from the other side of the world
- D multicultural influences from many sources of immigration.

33 Which one of the following is closest in meaning to the term 'cultural baggage' (line 12) as it is used in the passage?

- A second-hand notions
- B burdens of civilisation
- C patterns of thought and behaviour
- D items such as books and paintings.

- 34** Manne's references to anti-British feeling in Australia suggest that he
- A** regards it as inexplicable and foolish
 - B** can explain its source but finds it misguided
 - C** fears its threatening and destructive potential
 - D** welcomes it as a sign of increasing national maturity.
- 35** The passage suggests that one of the things prompting Manne to write is a wish to
- A** combat anti-British attitudes in Australia
 - B** remind Australians of the diversity of their cultural heritage
 - C** make Australians more hospitable towards immigrant families like his own
 - D** explain the source of Australians' inferiority complex and sense of isolation.

Unit 10

Questions 36-37

The even integers are: $\dots - 4, - 2, 0, 2, 4, \dots$; the odd integers are: $\dots - 3, - 1, 1, 3, \dots$.
Let x and k be integers, and let F_k and B_k be defined as follows:

$$F_k(x) = x + k$$

$$B_k(x) = x - k$$

Examples: $F_2(3) = 3 + 2 = 5$
 $B_1(- 2) = - 2 - 1 = - 3$

- 36** $B_5(- 4) =$
- | | |
|--------------|------------|
| A - 9 | C 1 |
| B - 1 | D 9 |
- 37** $F_k(x) - B_k(x)$ is
- | | |
|-------------------------------------|-----------------------|
| A odd only when k is odd | C always odd |
| B even only when x is even | D always even. |

Unit 11

Question 38 – 40

38 This unit is about number systems with different bases.

The decimal system of numbering has a base of 10, which means it uses ten digits – 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. The position of each digit in a number indicates the place value of that digit.

The place values for the decimal system are as follows:

Base 10	Place value	10 000	1000	100	10	1
	Power of 10	10^4	10^3	10^2	10^1	10^0

Consider the number 72 324.

This number can be written as: $70\,000 + 2\,000 + 300 + 20 + 4$

Or as multiples of powers of 10: $7 \times 10^4 + 2 \times 10^3 + 3 \times 10^2 + 2 \times 10^1 + 4 \times 10^0$

When bases other than 10 are considered, the same principle applies. For example, if 3 is used as a base, the only digits used are 0, 1 and 2, and the place values are as follows:

Base 3	Place value	81	27	9	3	1
	Power of 3	3^4	3^3	3^2	3^1	3^0

The base 3 number $112_3 = 1 \times 3^2 + 1 \times 3^1 + 2 \times 3^0 = 9 + 3 + 2 = 14$

Any number for which the base is not shown, such as 14 in the example above, is taken to be a base 10 number. Numbers in bases other than 10 show the base as a subscript following the number.

38 The number 976 243 is to be expressed as a base 4 number.

Without doing any calculations, which of the following is the only possible answer?

A 3232111443₄

C 3432111303₄

B 3232111304₄

D 3232111303₄

39 The number 449 expressed as a base 3 number is:

A 112212_3

C 211122_3

B 121122_3

D 221121_3

40 If $1341_b = 349$, then b is:

A 6

C 8

B 7

D 9

Unit 12

Question 41

A person needs cooking chocolate to make a birthday cake. The supermarket sells it in the following packets:

- I. 100 grams for \$1.55
- II. 200 grams for \$3.05
- III. 300 grams for \$4.60
- IV. 400 grams for \$6.20

Which packet provides cooking chocolate at the cheapest price per gram?

- | | | | |
|----------|----|----------|-----|
| A | I | C | III |
| B | II | D | IV |

Unit 13

Questions 42-47

Gold-bearing sediment, composed of various solid impurities along with particles of gold, is commonly found in the beds of rivers and streams. Gold is often extracted from the sediment by *panning*.

Panning involves putting some gold-bearing sediment and water in a wide pan and swirling the mixture for a minute or two. The gold, being heavier than the impurities tends to settle on the bottom of the pan. Then the water, together with some of the impurities mixed with it, is carefully poured off so that the gold particles remain in the pan. Inevitably, some gold is lost during the pouring and some of the impurities will remain in the pan.

Figure 1 illustrates what happens when a sample of gold-bearing sediment is panned.

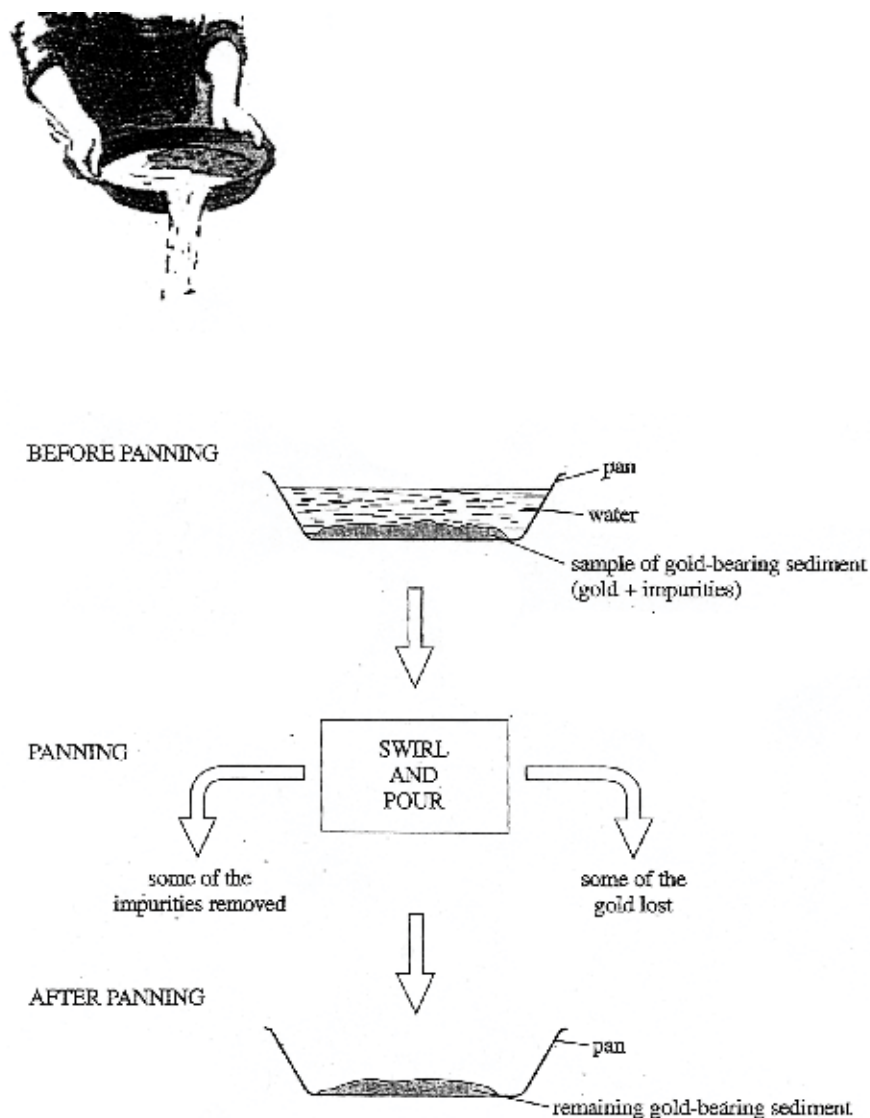


FIGURE 1

Note: In practice panning is usually repeated but, for the purposes of this unit, assume panning is done once.

- 42 A sample of gold-bearing sediment contained 10.0 grams (g) of gold, and impurities made up 87.5 per cent of its mass.

The mass of the sample was

- A 80.0g
- B 87.5g
- C 90.0g
- D 125.0g

- 43 Another sample of gold-bearing sediment, a mass of 180.0grams, was panned. Weighings made after panning showed that 1.5 grams of gold had been poured off with the water and that 133.5 grams of gold-bearing sediment remained in the pan.

What is the value of the ratio $\frac{\text{mass of impurities removed}}{\text{mass of gold lost}}$?

- A 3
- B 30
- C 45
- D 67.5

The next three items refer to the following additional information.

A further sample of gold-bearing sediment, composed of 0.20 grams of gold and 108.80 grams of impurities, was panned. During panning, 2 per cent of the gold was poured off with the water, whereas 40 per cent of the impurities were removed.

- 44 1 gram = 1000 milligrams (mg)

What was the mass of the gold lost when the water was poured off?

- A 0.40g
- B 0.04g
- C 4.00mg
- D 0.40mg

- 45 After panning, the mass of impurities in the gold-bearing sediment that remained in the pan was

- A 43.20g
- B 43.52g
- C 64.80g
- D 65.28g

- 46** Before panning, approximately 0.18 per cent (by mass) of the sample of sediment was gold.

After panning, approximately what percentage (by mass) of the sediment in the pan was gold?

- A** 0.2 per cent
- B** 0.3 per cent
- C** 2.0 per cent
- D** 5.0 per cent

The next item refers to the following additional information.

Suppose that, when a given sample of gold-bearing sediment is panned, p per cent of the mass of impurities and q per cent of the mass of gold are removed.

- 47** A sample of gold-bearing sediment is panned so that all of the impurities are removed but none of the gold is lost.

Which one of the following pairs of values for p and q applies?

- A** $p = 0$ and $q = 0$
- B** $p = 100$ and $q = 0$
- C** $p = 0$ and $q = 100$
- D** $p = 100$ and $q = 100$

UNIT 14

Questions 48 and 50 refer to the the graphs and information provided in unit 4.

Please refer to page 29.

Abby considers further the Phonewise plans.

Question 48

Phonewise decide to set up spreadsheets on their web site that will allow customers to calculate the cost for each plan. They use T for the total cost per month in dollars and n for the number of calls.

A mathematical formula that could be used to calculate the total cost per month in dollars for the Premium plan is

A $T = 0.20n + 10$ C $T = 10n + 30$

B $T = 5n + 10$ D $T = 20n + 10$

Question 49

Premium, Timewise and Business plans would all result in the same total monthly cost for customers

A with 150 calls per month.

B with 200 calls per month.

C with 250 calls per month.

D in none of the above situations.

Question 50 refers to the following additional information:

A second telephone company, *Connect*, has recently been formed. They offer the *Superconnect* plan. Superconnect customers pay a monthly rental of \$20 plus 10 cents per call.

Question 50

One customer thought about changing from Timewise to Superconnect but decided not to do this because the Phonewise company had been very reliable.

After 6 months at 200 calls per month, how much would the customer have saved if she had changed?

A \$ 0

B \$10

C \$30

D \$60

UNIT 15

Questions 51 – 54

The following poem is set in the northern hemisphere, where students return to school in September after the summer break.

Quieter Than Snow

I went to school a day too soon
And couldn't understand
Why silence hung in the yard like sheets
Nothing to flap or spin, no creaks
Or shocks of voices, only air. 5

And the car park empty of teachers' cars
Only the first September leaves
Dropping like paper. No racks of bikes
No kicking legs, no fights,
No voices, laughter, anything. 10

Yet the door was open. My feet
Sucked down the corridor. My reflection
Walked with me past the hall.
My classroom smelt of nothing. And the silence
Rolled like thunder in my ears. 15

At every desk a still child stared at me
Teachers walked through walls and back again
Cupboard doors swung open, and out crept
More silent children, and still more. 20
They tiptoed around me
Touched me with cold hands
And opened their mouths with laughter that was

Quieter than snow.

Berlie Doherty

Question 51

The poem as a whole suggests the poet is

- A excited.
- B unnerved.
- C indifferent.
- D overwhelmed.

Question 52

In describing her visit to the school, the poet gives particular emphasis to

- A** her own forgetfulness.
- B** the reversal of her expectations.
- C** her sense of relief at finding the school deserted.
- D** the reinforcement of her negative views of school.

Question 53

Which sensory feature does the poet most emphasise?

- A** sight
- B** smell
- C** touch
- D** sound

Question 54

The poet sees herself as

- A** a wary intruder in the school.
- B** a welcomed visitor to the school.
- C** a suspicious stranger in the school.
- D** the rightful proprietor of the school.

Answers to Sample Questions – Multiple Choice

Remember that approaches other than those given here may also be used to find the correct or best answer to a question.

The sample questions are taken from various scaling tests. On the following pages they are coded according to their relative difficulty:

less difficult	*
intermediate	**
more difficult	***

The level of difficulty is based on students' performance on the questions.

Unit 1

Questions 1 - 4

This passage presents an interpretation of late twentieth century Australian society. It is addressed to an educated but non-specialist reader. The questions test students' ability to pick up the implications both of the piece as a whole and of various details. The AST typically includes stimulus such as this, dealing with contemporary social issues.

Question 1 **C** *

The first paragraph sketches a history of ideas about childhood, from which students need to distinguish what the writer sees as the current position of teenagers. In previous times, while 'waiting in the wings', children were witness to the experience of adulthood and thus aware of its harsh realities — but this was in the past, not the present. Although the style of expression is indirect, the writer clearly regards teenagers today as protected from such realities, and the word 'indulged' (line 4) suggests over-protection.

Later in the passage it is implied that parents may consider teenagers disrespectful, and that teenagers are subjected to stress and pressure (alternatives **B** and **D**), but these ideas are not located in lines 1 – 4. There is no suggestion anywhere in the passage that teenagers are selfish (alternative **B**). Alternative **A** misleadingly distorts the phrase 'free, innocent and self-contained'.

Question 2 **A** *

The question directs students to the third paragraph. The first sentence of the paragraph explicitly uses the word 'indulged', with 'cosseted' emphasising the idea of excessive pampering. The second sentence of the paragraph offers the alternative scenario of children 'left to their own devices': that is, unsupervised and neglected.

Question 3 **D** **

The phrase, 'the logistics of contemporary urban life' (line 12) is a key to answering this question. 'Logistics' is a word used to describe large-scale organisation of people and equipment, such as in an army. To refer to ordinary life as a matter of logistics implies overwhelming complication and suggests that parents are too 'pressured and distracted' to pay attention to their children.

The passage as a whole suggests that the current position of children and teenagers is unfortunate, but it does not convey alternative **A**'s message that parents are to blame for this state of affairs; nor, as alternatives **C** and **B** imply, that parents have made a conscious and voluntary decision to neglect their children.

Question 4 **B** *

To answer this question correctly students need to have understood both the explicit content and the tone of the passage. In the first line and in the last paragraph the writer refers to childhood in the past as a time of freedom and innocence, clearly excluding the idea that a new definition of childhood would be a reaction against rigidity (alternative **D**). Throughout the passage the writer argues that the notion of childhood is changing in reaction to the conditions in which families find themselves, not as a result of any deliberate thinking about childhood (alternative **C**). Alternative **A** is more difficult to dismiss, since like alternative **B** it is couched in terms of reaction. However, the positive terms 'natural' and 'progress' are at odds with the writer's critical attitude to contemporary life, summed up in the phrase 'present realities seem harsh'. The neutral 'consequence of social changes' (alternative **B**) is therefore the best answer.

Unit 2

Questions 5 - 9

Question 5 **C** *

Note the right-hand segment of the triangle decreases from 6490 to 171 through the stages.

Question 6 **C** *

Note the left-hand side of the triangle on the 3rd rung.

Question 7 **D** *

$$\frac{2950}{6490} \quad \text{which is just under half;}$$

hence (D)

Question 8 **B** **

Subtract the number in the right hand side of the triangle from the corresponding number in the left-hand side of the triangle.

hence (B)

Question 9 **D** **

Note: D is the only one with a ratio over 2. Checking other choices, A has a ratio less than 1, while B and C have ratios between 1 and 2.

UNIT 3

Questions 10 - 11

Question 10 **B** *

It is pretty clear that the victim had been hit by one of the many bowling pins. There was no need to go into a long winded or non-judgemental quote.

hence (B)

Note: the reasons why the other 3 choices are incorrect.

Question 11 **C** *

In the cartoon the city is depicted as a people-eating monster, with the solitary human figure representing 'people'. The eye and mouth of the individual, who is clearly about to be gobbled up, make him look vulnerable, as does his stooped submissive posture. The victim's view of the city is endorsed by the cartoon, given the monster's open mouth, sharp teeth and glaring eye, and its position looming over the little worker.

The positive qualities of cities presented in alternatives **A** and **B** clearly do not apply to this vision, and the capacity for subtle judgment implied in the word 'critical' (alternative **D**) does not fit the image of a city as a brutish monster.

Unit 4

Questions 12 - 14

Question 12 **D** *

$$\$10.00 + (\$0.20 \times 100) = \$30.00 \quad \text{hence (D)}$$

Question 13 **D** **

On checking each one, you notice that the only line that incurs 10 cents per call does not fit with a \$30.00 rental. The other two choices don't fit. Hence, none of these. (D)

Question 14 **A** **

The lines should be parallel; only I and IV are. Graph IV would be for a much higher cost per call. Elimination of options is a sound strategy for these types of items.

hence (A)

Unit 5

Questions 15 - 18

This unit tests students' ability to read a table and to extract meaningful information. The information is represented as numbers, but the questions demand some interpretation of language as well. Tabular material dealing with social facts or, as in this case, with a survey of opinions and attitudes, is common in the AST.

Question 15 **D** *

Each of the alternatives **A**, **B**, **C** and **D** refers to one line of the table. To answer this question correctly, students must find the appropriate lines in the table and compare the figures for blue- and white-collar workers in those lines.

The largest of these differences between blue- and white-collar workers is 7% for 'Major War very unlikely'. Therefore alternative **D** is the correct answer.

Question 16 **C** *

This question focuses on the last section of the table, PERSONAL LIFE IN THE 1990s, and on the last four columns of that section which deal with age groups. The most negative response the people who were interviewed could make to the question about personal life was 'Worse'. Thus the question is asking which age group had the highest percentage of 'Worse' responses. With 13%, 40-54 year olds had the highest percentage, so alternative **C** is the correct answer.

Question 17 **A** **

Like Question 15, this question requires students to identify appropriate rows from the table, and to compare certain figures in those rows. It also requires an interpretation of the word 'pessimistic' in the context of each question from the survey.

The largest pessimistic response is for 'Living Standards will fall' at 47%, so the correct answer is alternative **A**.

Question 18 **D *****

This question requires students to relate the attitudes represented in each set of responses to the concept of optimism. The most optimistic response for each survey question is:

- Living Standards in the 1990s — will improve;
- International Instability in the 1990s — reduction in conflict; and
- Major War between Superpowers in the 1990s — very unlikely.

(Note that there are no blue- and white-collar figures for the survey question about personal life.)

Blue-collar workers are more optimistic than white-collar workers both about Living Standards and Major Wars between Superpowers in the 1990s; therefore alternative **A** is wrong. White-collar workers are more optimistic about International Instability; therefore alternative **B** is wrong. This inconsistency of responses between the blue- and white-collar workers points to alternative **D** as the best answer.

Unit 6

Questions 19 – 22

Question 19 **C ***

Notice $\frac{1}{2}$ is to be distributed. $\frac{1}{2}$ to sisters, $\frac{1}{2}$ to Grandchildren.

$$\therefore \frac{1}{2} \times \frac{1}{2} \times \frac{1}{3} = \frac{1}{12}$$

hence (C)

Question 20 **A ****

Anna – grandchildren: $\frac{1}{4} \times \frac{1}{9} = \frac{1}{36}$

Roberta – grandchildren: $\frac{1}{2} \times \frac{1}{12} = \frac{1}{24}$

The difference = $\frac{1}{24} - \frac{1}{36} = \frac{1}{72}$ (A)

Question 21 **C ****

This question, as with Q 22 below, is the type where each distracter has to be tested. In this case C is the only one that makes sense. (C)

Question 22 **D *****

Using the 'test all options' strategy, D is the only one that is true.

N.B: Ensure you are clear in your own mind why A, B and D are wrong in Q 21 and A, B and C are wrong in Q22.

Unit 7

Questions 23 – 29

While much of the material in the AST is contemporary and Australian, students can also expect to see texts from other cultures and times. This unit is based on two passages of prose fiction from an English short story written in the early part of the twentieth century. The passages explore and define the character of Mr Massy,

both through direct authorial description and through the description of other characters' responses to him. This unit draws on students' linguistic and interpersonal understandings.

Question 23 **A** ***

The phrase 'initial reaction' in the question clearly points to Mrs Lindley's exclamation to herself on first seeing Mr Massy, 'What a little abortion!' (line 11). Hers is an intense version of the whole family's 'shock of disappointment' (line 6), an unexpected and visceral response which is captured in alternative **A**, 'spontaneous and emotional.'

Question 24 **D** **

This question asks students to find evidence in the passage to support one or other of the alternative statements about Mr Massy's view of himself in relation to others. The word 'nervous' is used twice (lines 7 and 11), suggesting some sort of uncomfortable awareness of his difference to others. This excludes alternatives **A** and **B**. Alternative **C** is implausible because, although Mr Massy sneers at others' intellectual failings, this is out of confidence in his own intellect rather than complacency about the way he relates to others. On the contrary: 'he had to defend himself and his own insufficiency' (lines 9 – 10) clearly points to a perception of something lacking in himself, even if that perception is not fully understood; thus **D** is the best alternative.

Question 25 **D** **

For this question students need to judge the degree of consciousness and the motivation involved in Mr Massy's kindness. The correct answer, **D**, recognises that Mr Massy is genuinely acting for others' good in so far as he can understand what that is, and is not self-interested or devious as alternatives **A**, **B** and **C** suggest. Mary is appalled at Mr Massy's absence of feeling but she does not doubt his sincerity.

Question 26 **C** *

Emotional support depends on human sympathy, the very thing of which Mr Massy is incapable. However, he can and does do useful things for others, giving practical help in a variety of contexts, both major and minor (see lines 18 – 20). Thus there is no inconsistency in the author's two uses of the word 'help'. Mr Massy is incapable of proffering help in one way, but can and does help in another.

Question 27 **B** **

Alternative **B** reflects the sense of the last sentence of paragraph 1: 'It seemed to Miss Louisa he scarcely distinguished one person from another, but that he liked to be near her, or to Miss Mary, for some sort of contact which stimulated him unknown.' Alternative **C** is excluded because it overstates and generalises Mr Massy's feelings in a misleading way.

Question 28 **C** *

The lack in Mr Massy is a failure to feel, not a failure to behave in a particular way, to 'set an example,' as alternative **A** implies. In his outward behaviour and in his commitment to ideas or an institution Mr Massy is adequate: 'As far as he could conceive Christianity, he was a perfect Christian'; 'it was as if he had accepted the Christian tenets as axioms.' The problematic area of life, and Christianity, for him is engagement with other human beings. 'Love of one's fellow man' is certainly beyond Mr Massy's reach as a Christian.

Question 29 **A** **

For this question students need to make a global judgment of Mr Massy, balancing various elements of his character. The generalised 'desire for close relations with other people' (alternative **D**) is contradicted by his inability to distinguish most people from each other (line 11). Christianity is an important but impersonal fact of his life, a matter of action and principle, inspiring neither doubt nor pride (alternatives **B** and **C**). Although Mr Massy is aware of some kind of inadequacy in his relations with other people, as discussed in the note on Question 28, he is convinced of his intellectual superiority. The only glimpse of animation in Mr Massy is his 'sneering little giggle' at human stupidity and the comment that he finds stupidity 'exquisitely funny'. This, and his way of negotiating the world through mathematical working out, solving and calculating (lines 24 – 25), suggests a mind confident in its own intellectual ability.

Unit 8

Questions 30 - 31

Question 30 **B** *

$$2 \pi R h$$

$$= 2 \pi \times R \times 20$$

$$= 40 \pi R \text{ i.e: B} \qquad \text{hence (B)}$$

Question 31 **D** ***

Consider Volume at start – volume of 10 wood pencils

$$\text{Volume at start} = 20R \times 2R \times 20$$

$$= 800 R^2$$

$$\text{Volume of Wood in 10 pencils} = 10 [\pi R^2 \times 20 - 20 \pi r^2]$$

$$= 10 \pi [20R^2 - 20 r^2]$$

$$= 200 \pi [R^2 - r^2]$$

$$\text{Thus Volume of wood wasted} = 800R^2 - 200 \pi R^2 + 200 \pi r^2$$

hence (D)

Unit 9

Questions 32 – 35

Like Unit 1 this unit is based on a piece of prose by a prominent Australian academic and social critic. More reflective and directly personal in tone, it invites questions about the stance of the writer towards his audience as well as about the substance of the argument.

Question 32 **B** **

This question tests whether students have understood the main point of Robert Manne's argument about non-aboriginal Australia. Manne states quite explicitly that in his view 'the foundations of (non-aboriginal) Australian civilisation remain . . . stubbornly British' (lines 21 – 22). The source of the British influence is Britons who settled in Australia, both the original settlers and those who arrived 'during the first three quarters of its history' (lines 5 – 6). The influence has not been exercised from afar by the colonial power, as alternative **C** suggests.

Question 33 **C** **

This question asks students to interpret a detail of language, 'cultural baggage'. In some contexts this phrase can be negative, referring to an unwanted, burdensome inheritance as alternative **B** suggests. However in Manne's argument the legacy of British culture is a positive attribute; thus 'patterns of thought and behaviour', which captures the idea of a heritage without implying anything pejorative, is the best answer.

Question 34 **B** ***

In lines 20 – 21 Manne names two sources of anti-British feeling, multicultural ideology and traditional Irish anti-Britishness. These positions are clearly recognised and understood by the writer, although he does not share them, and the appreciative catalogue of the features of the British 'cultural baggage' which forms the second paragraph makes it clear that he finds those who deride it misguided. Because Manne recognises and understands the sources of anti-British feeling, alternative **A** is implausible. Alternative **C** is ruled out by the

last sentence, in which Manne refers confidently to the continuing value attached to the British heritage by Australian society. Alternative **D** is wrong because it puts a positive spin on anti-British feeling which is clearly at odds with Manne's regard for the British influence.

Question 35 **A** ***

Manne frames his appreciative sketch of the origin and nature of the British influence in Australia with references to a hostile view, both in the first sentence of the piece and in the last paragraph. Thus it is implied that he sees a need to defend his position, 'to combat anti-British attitudes in Australia' (alternative **A**). Since the cultural features he describes are all British, it is obviously his strategy to remind the reader not of the diversity (alternative **B**), but of the specifically British nature of the Australian heritage.

Unit 10

Questions 36 – 37

Units such as this, focusing on a kind of abstract mathematics, occasionally appear in the AST. Students need to apply the given rules, but no mathematical knowledge beyond Year 10 is necessary.

Question 36 **A** *

$$B_5(-4) = B_k(x) = x - k = -4 - 5 = -9$$

Question 37 **D** ***

$$F_k(x) - B_k(x) = (x + k) - (x - k) = x - x + k + k = 2k$$

Since k is an integer, $2k$ must be even.

Unit 11

Questions 38 - 40

Question 38 **D** *

Students need to know or observe that in a base 4 number system, only $\{0,1,2,3\}$ are allowed digits.
hence (D)

Question 39 **B** **

Note:

$3^0 = 1$	$449 = 243 + 206$
$3^1 = 3$	$= 243 + 2 \times 81 + 44$
$3^2 = 9$	$= 243 + 2 \times 81 + 27 + 9 + 8$
$3^3 = 27$	$= 243 + 2 \times 81 + 1 \times 3^3 + 1 \times 3^2 + 2 \times 3 + 2$
$3^4 = 81$	$= 1 \times 3^5 + 2 \times 3^4 + 1 + 3^3 + 1 \times 3^2 + 2 \times 3 + 2 \times 3^0$
$3^5 = 243$	$= 1 \ 2 \ 1 \ 1 \ 2 \ 2 \text{ in base } 3$

hence (B)

Question 40 A ***

$$\begin{aligned}1341_b &= 1 \times b^3 + 3 \times b^2 + 4 \times b^1 + 1 \times b^0 \\&= b^3 + 3b^2 + 4b + 1 \\&= 349 \\&\therefore b^3 + 3b^2 + 4b = 348 \\&b(b^2 + 3b + 4) = 348\end{aligned}$$

now 348 must have b as a factor and $348 = 2^2 \times 3 \times 29$
as 7, 8, 9, did not fit as factors

$$\therefore b = 6$$

hence (A)

Alternatively one could trial 6, 7, 8, 9, and observe that only 6 fits.

Unit 12

Question 41

Question 41 B *

This may seem an easy question. In the AST sometimes an easy question like this acts as a “follow-in” or “lead-in” to a harder one.

- I. 100g for \$1.55
 - II. 200g for \$3.05 \Rightarrow \$1.525 for 100g
 - III. 300g for \$4.60 \Rightarrow \$1.55 for 100g
 - IV. 400g for \$6.20 \Rightarrow \$1.55 for 100g
- \therefore Solution II is cheapest

hence (B)

Note in the AST, while the thinking is the same, there won't be a need for a calculator as the number will be “easily managed”.

Unit 13

Questions 42 – 47

Question 42 A *

Impurities $\rightarrow 87.5\%$ or $\frac{7}{8}$ of mass

\therefore gold $\rightarrow \frac{1}{8}$ of mass

10g $\rightarrow \frac{1}{8}$

\therefore Total Mass = 80g hence (A)

Question 43 **B** **

Total Mass: 180g

After panning 133.5g of gold bearing sediment remains

$$\bullet \bullet 180 - 133.5 = 46.5\text{g poured off}$$

This includes 1.5g of gold

$$\bullet \bullet \text{Impurities removed} = 45\text{g}$$

$$\text{Ratio} = \frac{\text{impurities removed}}{\text{gold lost}} = \frac{45}{1.5} = 30$$

hence (B)

Question 44 **C** **

0.2g of gold; 108.8g impurities

2% gold lost \rightarrow

$$0.02 \times 0.2\text{g} = 0.004\text{g} = 4\text{mg}$$

hence (C)

Question 45 **D** *

40 % impurities removed

$$\bullet \bullet 60\% \text{ impurities left}$$

$$\text{i.e. } 0.6 \times 108.8\text{g} = 65.28\text{g}$$

hence (D)

Question 46 **B** **

$$\text{Gold left} \rightarrow 0.2\text{g} - 0.004\text{g} = 0.196\text{g}$$

$$\text{Impurities left} = 65.28\text{g}$$

$$\bullet \bullet \text{Mass sediment left} = 65.28 + 0.196 = 65.476\text{g}$$

% of gold remaining sediment

$$= \frac{0.196}{65.476} \times 100 \quad \div 0.3 \quad \text{hence (B)}$$

Question 47 **B** ***

p % impurities removed, q % of gold

all impurities p = 100

no gold q = 0 hence (B)

Unit 13 General Note

While a calculator is helpful in this unit, in the actual AST the numbers will be arranged in such a way that no calculator will be needed to either derive a solution or to check the various alternatives.

Unit 14

Questions 48-50

Please refer to the information presented in unit 4 and the solutions.

Question 48 A *

$$T = 0.20n + 10$$

\uparrow \$/call \times n \uparrow fixed

hence (A)

Question 49 B **

Here one could try an algebra – based approach, however making up a simple chart may be the preferred strategy by many students.

	150	200	250
P	40	50	60
T	42.5	50	57.5
B	45	50	55



All 3 the same

hence (B)

Question 50 D **

Superconnect: $\$120 + \$20 = \$140$

vs

$\$120 + \$30 = \$150$

hence savings = \$10 p.m

\therefore \$60 Total

hence (D)

Note (B) is a very tricky distracter for those students who ignore the “call per month” statement

Unit 15

Questions 51 - 54

Question 51 **B** *

Going through the choices, the poet is clearly not “excited” nor “overwhelmed”.

This leaves B or C. She is not “indifferent” as she is aware of what circumstances she finds herself in. Hence “unremoved” is the last of the choices offered

hence (B)

Question 52 **B** **

Again this is a “close choice”. It is not at all clear she is in a “sense of relief” at finding the school deserted.

However it is true that what she observed is the opposite of what she expected to find.

hence (B)

Question 53 **D** **

While she does write about things she saw, the poet is more concerned with writing about the lack of surrounding quietness.

hence (D)

Question 54 **A** **

The poet is wary particularly as what she observed was not what she explained (as per Q52). She is clearly not a proprietor “(as in D) nor a” suspicious stranger (as in C). At no stage in the poem is she seen as “welcomed”. Hence the “wary intruder” is the best option.

hence (A)

Multiple Choice – Answer Key

Question	Answer Key
1	C
2	A
3	D
4	B
5	C
6	C
7	D
8	B
9	D

10	B
11	C
12	D
13	D
14	A
15	D
16	C
17	A
18	D
19	C

20	A
21	C
22	D
23	A
24	D
25	D
26	C
27	B
28	C
29	A

Question	Answer Key
30	B
31	D
32	B
33	C
34	B
35	A
36	A
37	D
38	D
39	B

40	A
41	B
42	A
43	B
44	C
45	D
46	B
47	B
48	A
49	B

50	D
51	B
52	B
53	D
54	A

Sample Questions – Short Response

These examples are approximately equally weighted and would be worth approx 4 marks each out of a total 50 marks available. This would mean that they should be completed in 20 – 25 minutes.

The given solutions are indicative only and do not represent all or the best possible solutions.

Example 1

This example involves dealing with information.

The question requires the student to select relevant information from the text passage and present this information in diagrammatic form using specific terminology. Further questions could be asked that require the student to evaluate ways of preventing the spread of schistosomiasis based on this information.

Read the following information and draw a diagram in the space below that represents as fully as possible the sequence of stages in the life of *Schistosoma*. The diagram should consist of arrows (up to five), boxes and words (up to thirty).

Schistosomiasis in humans results from infection by tiny parasites that after eating through skin move through the body in the blood stream feeding and growing to mature worms. Most of the parasites eventually lodge in or near the liver where they mature and lay thousands of eggs.

Some of the *Schistosoma* eggs pass out of the blood stream of an infected person, reach the digestive tract, and are eventually excreted in human wastes. Once these eggs reach rivers and streams, each egg hatches into a small larva. In order to survive, the larva must find an aquatic snail in which to develop. When development is complete a second larval stage passes from the snail into the water and seeks another human host. If the newly hatched larvae fail to find a host snail within 24 hours of hatching, they die.

The responses will be judged on the accuracy and comprehensiveness of the understanding and the presentation of the information.

Example 2

This example is a kind of interpretative response and evaluation item. Candidates are expected to describe and interpret the image.

The question was as follows.

What impressions are we given of the illustration below, and what does it seem to suggest?



Steinberg, S. 1984, *The Passport*, Vintage, New York

Responses will be judged on the:

- accuracy of the description or understanding of the material; and
- substance and quality of the interpretation offered.

(about 8 - 10 lines given)

Example 3

For the questions below you are to write what you think is the best argument for and the best argument against the following proposition.

Competition is a good thing.

Your arguments will be judged on their relevance, strength and clarity.

Question 1

In the space below write a strong argument **for** the proposition that competition is a good thing.

.....

.....

.....

.....

.....

.....

..... (2)

Question 2

In the space below write a strong argument **against** the proposition that competition is a good thing.

.....

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.....

.....

..... (2)

Example 4

The Australian Fire Service (AFS) Medal recognises distinguished service by members of the various Australian fire services. For each of the state fire services the limit on the number of medals able to be forwarded each year is based on the number of full-time permanent members and the number of other members – part time, volunteer or auxiliary.

A government website gives the following current regulations for the states.

- One award for each 1000, or part of 1000, full time permanent members of the fire service or combined fire services (as the case may be) of that state serving at 30 June in the year immediately preceding that calendar year;
- One award for each 5000, or part of 5000, part-time, volunteer or auxiliary members of the fire service or combined fire services (as the case may be) of that state serving at 30 June in the year immediately preceding that calendar year;
- One additional award.

Adding the three numbers gives the maximum number of awards for a state each year.

Question 1

A state fire service has 4695 full-time permanent members and 10 143 part-time, volunteer or auxiliary members as at 30 June in the preceding year.

Show your working here

For that state, what is the maximum number of AFS Medals that can be awarded, under the current regulations?

Write your answer here.

.....AFS Medals

Question 2

One year, a state fire service awarded, under the regulations, a total of 10 AFS Medals. As at 30 June in the preceding year, that fire service had 2817 full-time permanent members.

Determine the **minimum** number of part-time, volunteer or auxiliary members in that state's fire service as at 30 June in the preceding year. Explain your reasoning.

.....

.....

.....

.....

.....

Example 5

Image 1

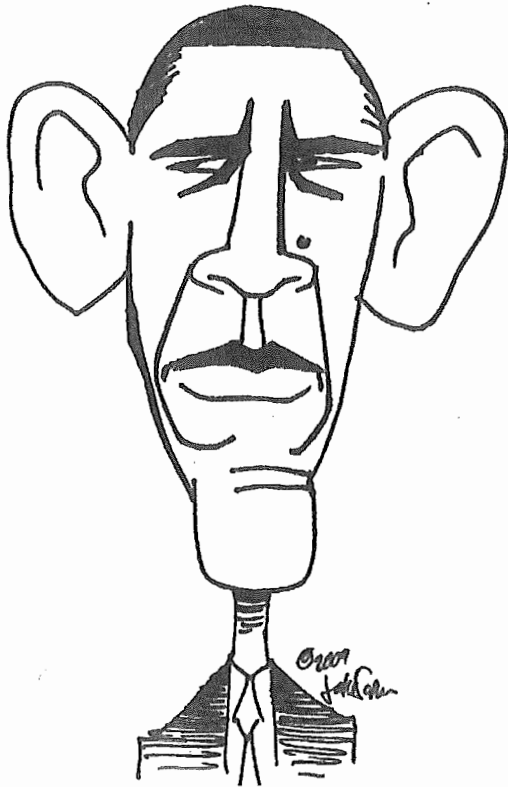


Image 2



The images on the opposite page are of the president of the United States, Barack Obama. (5)

Compare the two images.

What impression do they give of Barack Obama?

How are they similar and how are they different?

Your responses will be judged on the:

- accuracy of the description and understanding of the material;
- substance and quality of the interpretation offered.

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Example 6

Questions 1 and 2

In 1918–1919, an influenza pandemic swept the world, infecting around 25% of the population and killing millions.

The table shows the average age of death for males and females for the years 1917, 1918 and 1919 in some European countries.

	Average age of death – Females (years)			Average age of death – Males (years)		
	1917	1918	1919	1917	1918	1919
Denmark	59	57	58	56	55	56
Italy	48	28	46	46	30	44
Netherlands	57	49	56	55	47	54
Norway	59	52	58	56	49	56
Spain	44	31	42	42	30	40
Sweden	60	51	58	58	48	55

Question 1

By about how many years was the average age of death reduced by the influenza pandemic in Sweden in 1918? (1)

.....

.....

Question 2

Compare the average ages of death shown in the table during the years of the pandemic. (3)

.....

.....

.....

.....

.....

Answers to Sample Questions – Short Response Items

Discussion and Indicative Solutions

Typical arguments for and against will be mapped in the marking scheme. The marking scheme is not a fixed model answer. It is assumed there are a range of comments that may be judged to be strong and substantial, and that the way in which an idea is developed has an impact on the quality of the response. Candidates will offer arguments that have not been anticipated in the preliminary mark scheme and these arguments will be accommodated in the marking.

Example 1

The best responses will:

- include all significant stages in the life of *Schistosoma*; adults, eggs, larva 1, larva 2;
- clearly show the correct sequence of stages;
- include the roles of human and snail as hosts and the role of water in transmission;
- use arrows, boxes and words as specified in the question;
- demonstrate the cycle or repeating sequence of *Schistosoma* infection.

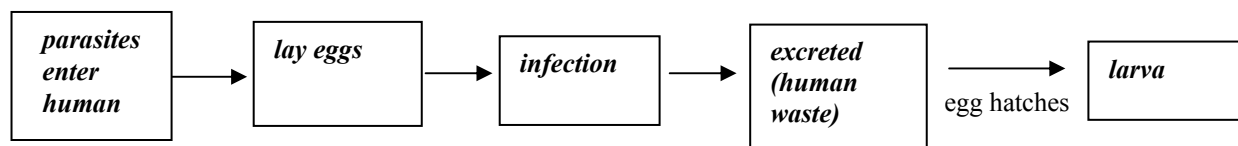
Satisfactory responses will:

- include main stages in the life of *Schistosoma*;
- include aspects of role of human, water and/or snail;
- use arrows, boxes and words as specified in the question.

The following example responses are ranked from weakest to strongest.

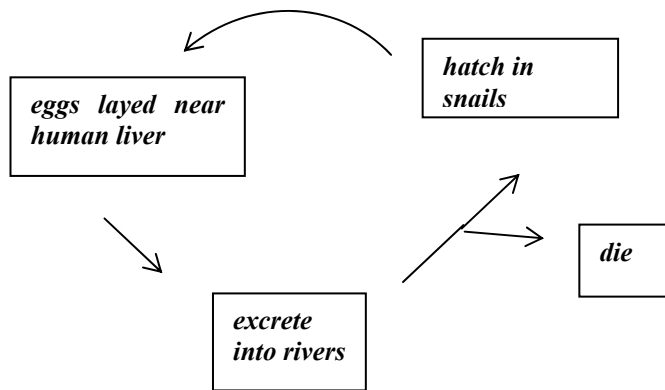
Student response 1

This is a low level response as the answer includes only part of the life of *Schistosoma*. The roles of water and the aquatic snail have been omitted.



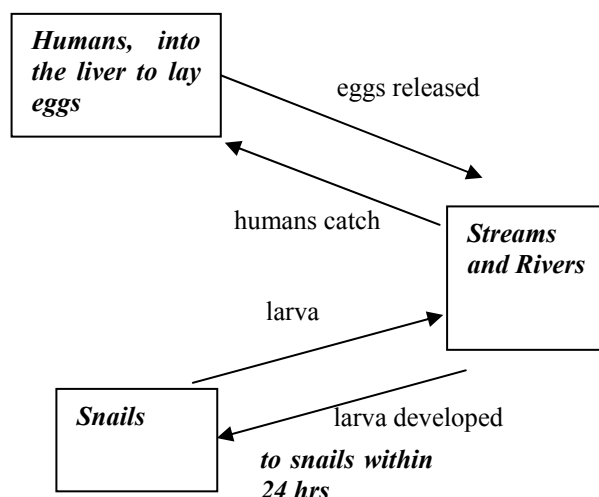
Student response 2

The second response is medium level because it includes the sequence from human to river to snail but has wrongly placed the egg hatching in the snails. There is no mention of larvae or of the role of water in human infection. The answer only meets some of the specifications in the question.



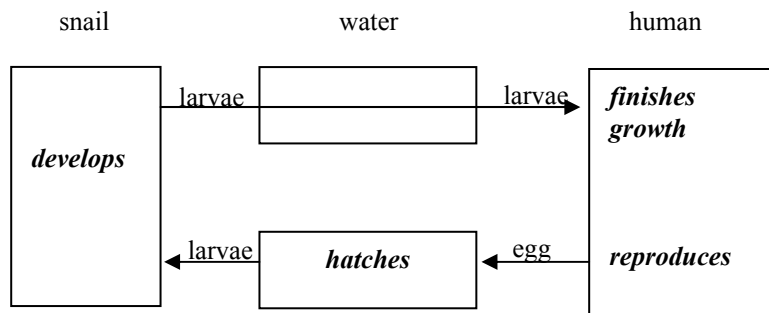
Student response 3

Response 3 is also of medium level because it includes the main stages in the life of *Schistosoma* but has used a format that does not clearly show the role of two types of larvae in cycling from human to snail and back again. The role of water is included. The release of eggs via human waste is omitted and there is some confusion about who is laying the eggs. This answer does not meet the specification 'as fully as possible'.



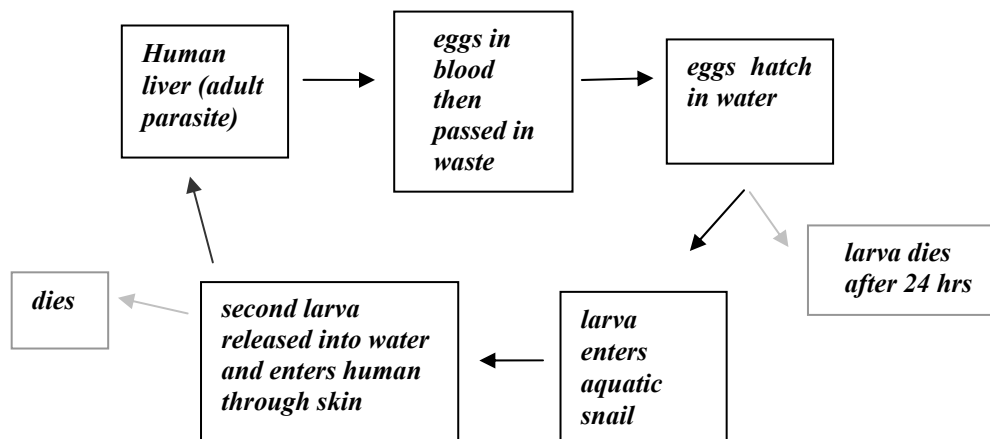
Student response 4

Response 4 is of a high level because it has included the significant stages in the life of *Schistosoma* and clearly shown the cycling from human to snail and back again. The role of water in the hatching of the first larval stage and the transport of the second larval stage is clear. The release of eggs in human waste and the organs involved inside the human body have been omitted but are not significant. This answer meets all the specifications of the question.



The following is a model answer.

The life of *Schistosoma* could be represented as a cycle or as a sequence starting and ending with human infection or at some other stage. The connections shown in grey are not essential.



Example 2 Discussion and Indicative Solutions

The following is a model description and interpretation but it is not a template.

It does not cover all possibilities, and it is assumed there are a range of comments that may be judged to be strong and substantial, and that the way in which an idea is developed has an impact on the quality of the response.

Candidates will offer responses that have not been anticipated in the preliminary mark scheme, and these views will be accommodated in the marking.

Description	Interpretation
The image is that of a torso and head. The figure is clothed in a suit and tie. The image is constructed with finger or thumb prints. The face of the figure is a thumbprint. There is a detailed and distinctive pattern to the thumbprint that is the face.	The clothing is formal and conservative. The figure has no face or other distinguishing features. It seems anonymous and impersonal. It is not an individual. But a finger print is more or less unique, so the face is in a sense unique. The image suggests different things. It might be said that the figure is anonymous, and lacks individuality. On the other hand it might be said that the figure is actually unique although it appears anonymous. The figure may symbolise a number of things.

Some indicative student responses are offered below. The responses are ranked from weakest to strongest.

Student Response 1 is a simple literal description of the figure with no interpretation.
Student Response 3 is a very specific analysis and interpretation. It identifies and explains different possible suggestions of the image and recognises that it has symbolic suggestions.

Student Response 1

The illustration opposite looks like a man in a suit and tie. It is made up of fingerprints. It is very interesting as at first I only noticed the fingerprints. The man is very big across the shoulders with a very long, oval face. He doesn't seem to have a neck.

Student Response 2

There may be a number of intended messages in the picture. The man has been constructed from fingerprints, suggesting individualism, however, the fingerprints may represent the ability for authorities to pry into each individual persons life. After all, if our fingerprints can be taken and kept on a permanent record, who is to say that the rest of our lives cant be affected in the same way. The piece may either be portraying individualism, or expressing a lack of personal privacy.

Student Response 3

The first impression I got was of a faceless person, representing anyone of us who don't represent anything. I think there are two ways it could be taken. As we know, fingerprints are individual for everyone, it could suggest that although we may look the same, as many fingerprints do, we are all individuals, like the fingerprints. But to me it more strongly suggests, that in society, we are nameless, faceless people, known and recognized as a person by the government only by a set of fingerprints, or an ID number, but that to them, we are not real people, just a statistic in their books.

Example 3 Indicative Solutions**Questions 1 and 2**

For questions 1 and 2 you are to write what you think is the best argument for and the best argument against the following proposition.

Competition is a good thing.

Your arguments will be judged on their relevance, strength and clarity.

Question 1

In the space below write a strong argument **for** the proposition that competition is a good thing.

Score	Descriptor	Examples
2	A strong and effective argument	Encourages excellence Brings out the best Is exciting and fun
1	A relevant but insubstantial argument	People are naturally competitive Winners make money
0	An irrelevant, inappropriate or trivial comment	

Question 2

In the space below write a strong argument **against** the proposition that competition is a good thing.

Score	Descriptor	Examples
2	A strong and effective argument	Causes conflict and hatred Excludes some Leads to unsporting behaviour Damages losers Can discourage
1	A relevant but insubstantial argument	Not everyone can win Losing makes people stronger
0	An irrelevant, inappropriate or trivial comment	

Example 4 Model Answer

Question 1

Full time permanent	= 5
Part time, volunteer, auxiliary	= 3
One additional	= 1
	<hr/>
Total	9
	<hr/>

Question 2

Full time permanent	= 3
Part time, volunteer, auxiliary	= n
One additional	= 1
	<hr/>
Total	$4 + n = 10$
	<hr/>

$\therefore n = 6$

5 medals implies 2500

\therefore Minimum number of part-time, volunteer or auxiliary = 25 001

Example 5 Model Answers

Your responses will be judged on the accuracy of the description and understanding of the material and the substance and quality of the interpretation offered.

Sound responses could refer to the following points:

Description	Interpretation
Image 1 cartoon exaggerated, caricature big ears, small beady eyes, looking sideways frowning	Image 1 suspicious or tricky expression untrustworthy unsympathetic, mocking attitude to Obama
Image 2 realistic drawing looking up smiling, benign background of presidential seal	Image 2 important and honourable role handsome, youthful noble, heroic, idealistic, innocent respectful attitude to Obama

Example 6 Model Answers

Question 1

By about how many years was the average age of death reduced by the influenza pandemic in Sweden in 1918?

Females 9 years, Males 10 years
Or
9.5 years

Question 2

Compare the average ages of death shown in the table during the years of the pandemic (3)

The numbers at left indicate the potential marks given out of the allocated 3 points	
3	A number of major points, accurate and detailed or comprehensive (global judgement, discount trivial or peripheral points) Average age of death drops for all in 1918 drops more for Italy and Spain drops least for Denmark goes up in 1919 to nearly the same level as 1917 females a little higher than males, change about the same
2	Two pertinent points
1	One pertinent point

Most Short Response Questions can be put into the following categories:

Always try to give short, pertinent responses.

Compare and Contrast

A statement or proverb

A work of Art

Argument and Rebuttal

Selecting key features of a passage

A chart, table or graph

Interpretation of data

Simple calculation

An erroneous statement not matching accompanying graph

A scientific, electronic or mechanical process

Media article

Experimental method

Levels of Achievement in the AST Writing Task

It is not a simple matter to distinguish between various levels of performance in a writing test. Answers with certain characteristics of thought and expression do occur across the range of grades and can contrast markedly with other answers that can be awarded a similar score. Not only are there various kinds of As and Cs for instance, but distinctions cannot readily be made between the candidates on either content or control of language in such a test. It is not only that different A or C essays will say different things, but also that some A or C answers will, in the paraphraseable content of their pieces, say much the same thing, yet there will be distinct differences in the way they say it. With these reservations in mind, the following suggestions are offered as an initial attempt to describe some of the **typical characteristics shown by the weakest answers**.

- a clear lack of focus or substance
- dependence on the stimulus material
- summary and paraphrase that indicates an inability to approach anything like analysis or interpretation of the stimulus or issues
- no evidence of grasping the issue or the stimulus
- simple and reductive handling of the issues
- crassness or crudeness in the comments on the issue
- inability to meaningfully use or engage with the stimulus
- clumsiness or crudeness in thought or expression of ideas
- unclear and inaccurate expression
- inappropriate tone and language

The negative character of this list accurately suggests the way these candidates draw attention to themselves by some deficit or weakness and are often at the lowest level of performance because their essays are incomplete, insubstantial or poorly written.

The below-average answers tend to show

- basic understanding or comprehension of the issue or stimulus
- a tendency to summarise and paraphrase in an obvious way
- rudimentary ability to develop a point of view about the issue or the stimulus
- simple, predictable and obvious thoughts and responses
- wandering disorganisation or a mechanical rigidity
- mere repetition or illustration of the stimulus rather than discussion or argument
- general or vague discussion
- satisfactory but rather clumsy, stolid or clichéd writing

These answers tend to be awkward and limited. Some are vague or sketchy, but they are not too difficult to distinguish from those placed at the lowest level because they are crude, insubstantial or superficial.

The middle range answers tend to show

- a more than basic grasp of the issue and stimulus
- an ability to move away from the stimulus and comment on the issues
- difficulty giving a developed point of view or organising an argument
- comparatively little evidence of involvement or understanding of the issue

- some purposeful definition of the topic
- some organisation and direction in the argument
- a rather standard or obvious direction
- straightforward and blandly competent writing

The impression among the markers is that, given the general quality of the papers, it is reasonable to place the largest proportion of candidates in the middle or C range. This is the area of the range where judgements of quality are most difficult to make and where markers are most likely to differ.

The above average answers tend to show

- some independent thought about the issue and an ability to make something of the stimulus
- engagement with the issues and the ability to go beyond the obvious and recognise complexities
- discussion that makes distinctions and can formulate a point of view
- some evidence of the ability to organise and structure an argument
- ability to develop and express a point of view
- a degree of direct involvement and a definite point of view
- elaboration, exploration and constructive use of the stimulus
- lucid and precise

These answers may differ from the average in consistency and degree, but they may also share, to a modest extent, some of the characteristics of the strongest answers. The above average answers have substance and are presented with a certain ease and fluency.

The strongest answers tend to show

- the ability to analyse and interpret the stimulus
- awareness of the complexities of the issues and the stimulus
- insight into the issues and the ability to think about them critically
- ability to develop a view and organise an argument
- sensitivity, involvement and responsiveness
- a distinctive tone, view or attitude
- ability to organise a view and make a cogent argument
- a developed and substantiated point of view
- lucid, fluent, precise and vivid expression

Such perfection is, of course, very rarely attained, but the strongest answers do, in spite of blemishes, show some of these characteristics.

As was suggested earlier, assessing writing involves both the quality of the language candidates use and the points or arguments they present. The AST writing test is an assessment of the candidates' writing skills, but the assessment also involves assessing the views that are presented, how the points are made, including consideration of the detail and substance of the discussion, the coherence and cogency of the argument, as well as the precision and vividness of the writing. The assessment does not set out to explicitly examine candidates' thinking or grasp of issues as distinct from their ability to write an argument. Even so markers will reward candidates whose power of expression seem limited or who have difficulty clearly articulating what they want to say, but who seem to have made some genuine grasp of the issues and offer a thoughtful response.

Levels of Achievement for the AST Writing Test

The weakest answers typically show	Below average answers typically show	Average answers typically show	Above average answers typically show	The strongest answers typically show
<ul style="list-style-type: none"> dependence on the stimulus material basic summary & paraphrase no evidence of grasping the issue or the stimulus an inability to analyse or interpret the stimulus no point of view or a simple & reductive handling of the issues crassness or crudeness in the comments on the issues little evidence of organisation inability to meaningfully use or engage with the stimulus obvious or tangential clumsiness or crudeness in thought or expression of ideas unclear & inaccurate expression inappropriate tone & language a clear lack of focus & substance 	<ul style="list-style-type: none"> basic understanding or comprehension of the issue or stimulus obvious summarising & paraphrasing of the stimulus rudimentary ability to develop & substantiate a point of view about the issue or the stimulus simple, predictable & obvious thoughts and responses wandering disorganisation or a mechanical rigidity mere repetition or illustration of the stimulus rather than discussion or argument general or vague discussion insubstantial or verbose and padded rather basic & clumsy, stolid or clichéd expression 	<ul style="list-style-type: none"> a more than basic grasp of the issue & stimulus an ability to move away from the stimulus & generate some pertinent comments on the issue some purposeful definition of the topic difficulty giving a developed point of view or organising an argument comparatively little evidence of real involvement or insight into the issue a rather standard or obvious direction for the argument or an eccentric or tangential approach clear & basically sound expression but rather bland and uneven in quality 	<ul style="list-style-type: none"> some independent thought & some ability to generate ideas about the issue elaboration, exploration & constructive use of the stimulus engagement with the issues & the ability to go beyond the obvious & recognise or deal with complexities discussion that makes distinctions & can formulate a point of view some evidence of the ability to organise & structure a cogent argument clear & precise expression ability to interest the reader 	<ul style="list-style-type: none"> confident analysis & interpretation of the stimulus awareness of the complexities of the issues & the stimulus insight into the issues & the ability to think about them critically ability to generate ideas about the issue a broad & well informed perspective ability to develop a view & organise a cogent argument a sense of shape & closure sensitivity, involvement & responsiveness a distinctive tone, view or attitude a developed & substantiated point of view lucid, fluent, precise & vivid expression ability to involve the reader

Comments on the AST Writing Test – Doug McCurry, ACER

AST Writing Task Marking Scale						
F	E Weak	D Satisfactory	C Sound	B Strong	A Very strong	A+
5> 3%	6-8 5%	9-11 25%	12-14 35%	15-17 25%	18-19 7%	20
Typical characteristics - scripts at this level tend show						
	lack of focus and substance little evidence of grasping the issue or the prompt simple and reductive handling of the issues crassness or crudeness in the comments on the issues clumsiness or crudeness in thought or expression of ideas unclear and inaccurate expression inappropriate tone and language	basic understanding or comprehension of the issue or prompt basic ability to develop a point of view about the issue or the prompt simple, predictable and obvious thoughts and responses wandering disorganisation or a mechanical rigidity general or vague discussion rather clumsy, stolid or clichéd writing	some grasp of the issue and an ability to comment on it some purposeful definition of the topic some organisation and direction in the argument a rather standard or obvious direction straightforward and blandly competent writing	some substantial thought about the issue and an ability to do something with it engagement with the issues and the ability to go beyond the obvious and recognise complexities discussion that makes distinctions and can formulate a point of view a degree of direct involvement and a definite point of view elaboration, exploration and constructive use of the prompt lucid, fluent, and precise writing	the ability to analyse and interpret the prompt awareness of the complexities of the issues and the prompt insight into the issues and the ability to think about them critically sensitivity, involvement and responsiveness a distinctive tone, view or attitude a developed and substantiated point of view lucid, precise and vivid expression	
Some possible characteristics						
	vocab confusions poor understanding and grasp of issue, little argument or substance, immature, crude generalisations going off on tangents, little planning, lack of direction	paucity of ideas, repetition, untidy argument, lack of flow and fluency, quantity not quality monotonous sentence length and rudimentary shape to the piece poorer command of language than C, little awareness of differing views, loose argument, careless expression	straightforward and fairly competent, simple structure of sentences and argument bland, neat, clear but predictable, gestures towards substantial argument, grasp of subject but not many distinctions, can be repetitive structured and organised, but either too general or mere	some ability to construct a whole piece, clarity and focus logical development, control, easy to read and follow refreshing and interesting	Individuality and independence of thought, critical and analytical intelligence, enthusiasm and/or maturity and balance, a considered and conscious world view able to organise a whole piece, structured and coherent development, judicious use of different kinds of writing Precise, fluent, vivid, imaginative, individual writing with voice and rhythm	

TIME Two and a half hours (2 1/2 hours)

TASK You are required to write one essay of approximately 600 words, discussing a major issue raised in the material provided in this booklet. Your essay should develop a clear argument, and you should feel free to agree or disagree with any opinion expressed in the material.

You should begin by reading and thinking about the material provided. Your first task is to select an issue that you wish to write about, and to consider possible titles for your essay.

The material on the next two pages is to assist you in developing your argument about the issue you have chosen. You do not have to refer to any of the material specifically.

The time allowed for the test gives you plenty of time for thinking, planning, drafting, redrafting and editing your essay. For the last stage of this process, you may find the checklist on the last page of the booklet helpful.

Pens and biros only (not pencils) may be used for writing the final version. Loose paper will be provided for notes, plans, rough drafts, etc

Since examiners will take into account only what is written in the answer book, make sure that you leave yourself sufficient time to write out the final version of the essay.

Sample Writing Task 1

ACT Scaling Test

2007 Writing Test

Published by
Australian Council for
Educational Research Limited
Prospect Hill Road,
Camberwell, Melbourne, Victoria 3124

Read carefully the material on these two pages.

Write an essay of about 600 words, giving your point of view on a major issue raised in the material.

Give your essay a clear title.

You must respond to a major issue raised in the material but you do not need to refer to any of the material specifically. You should assume you are writing to an intelligent adult audience.

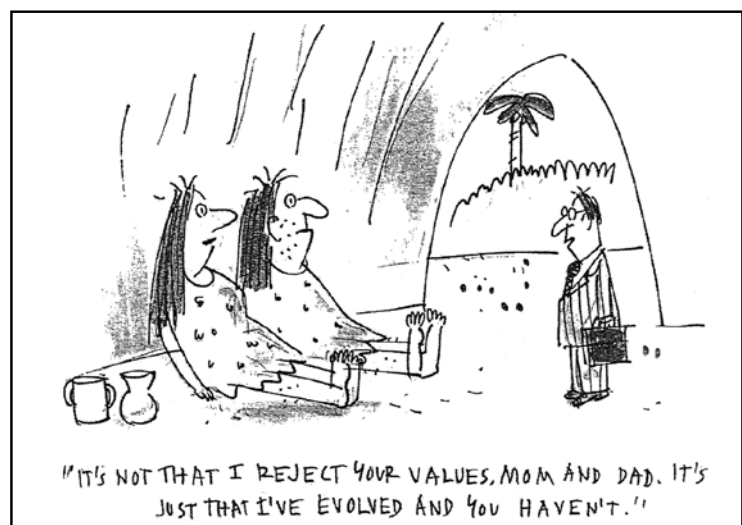
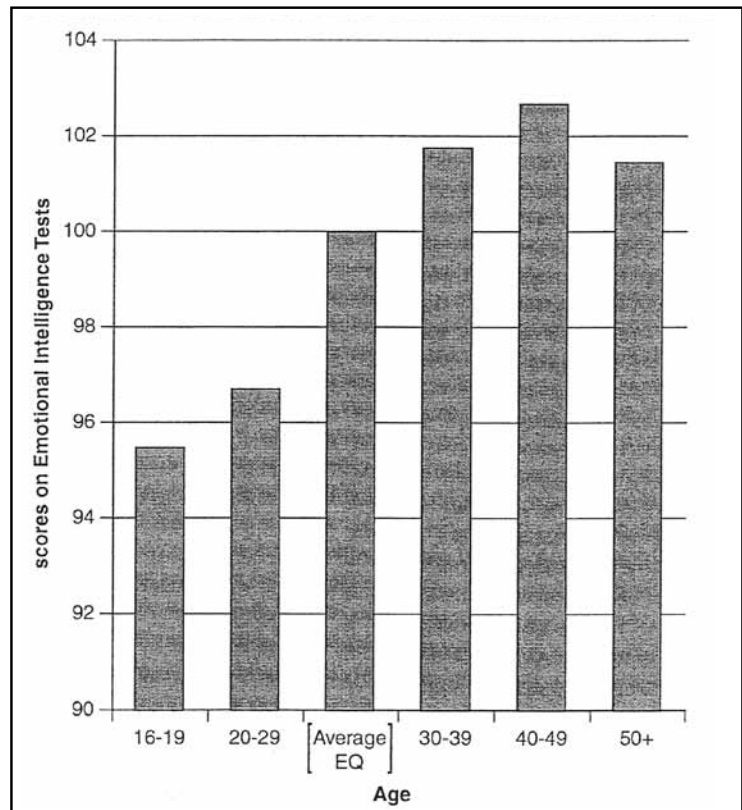
Young people forced to accept a double standard

If a sixteen year old is considered mature enough to have the kind of relationship that might produce children, it is absurd to assert that the same person is too young to drive, vote, consume alcohol or face the full consequences of criminal justice.

Whilst many young people perform 'adult-like' duties such as holding down a job, paying taxes and caring for family members, they do not have an avenue through which to have their views represented they do not have the right to vote. This is an unacceptable double-standard.

Today's young people are highly susceptible to problems such as homelessness, depression and exploitation yet, without the right to vote, they cannot contribute to the way the government might address these issues. They are tired of paternalistic responses to problems that directly affect them – they want the right to actively contribute to solutions. Our young people are better educated, have access to more information than ever and, after all, have a greater stake in the future than do the older generations.

Dr A. Inglis



The man of wisdom is the man of years.

Edward Young

Gray hair is a sign of age not wisdom.

Greek Proverb

It's official: the adolescent brain is not fully developed

Today's younger generation is less interested in current affairs or politics than they have ever been. They have been labelled the 'me generation' and for good reason. They are hardly likely to take time to inform themselves about serious political issues whilst there are so many more attractive things competing for their attention. Rights, such as the right to vote, are a privilege that should be available to those capable of understanding their importance and responsibility that they carry.

Although 16 and 17 year olds often look physically mature, they do not appreciate consequences, or weigh up information in the same way as adults do. Recent developments in brain research show the brain of a teenager is still developing and the process of 'hard-wiring' is not yet complete. In light of this research it would not only be wrong, but potentially dangerous to allow young people to undertake responsibilities for which they are not yet ready.

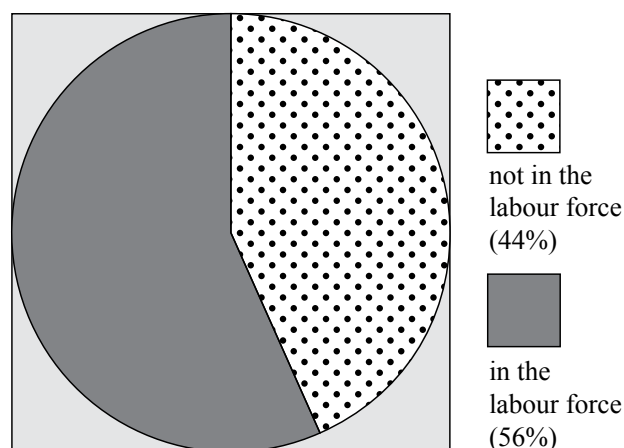
These research findings may also provide an explanation for why adolescents often fail to heed adults' warning about such choices; they may simply not be able to understand and accept arguments that seem logical and decisive to adults.

(<http://www.actforyouth.net/documents/may02factsheetadolbraindev.pdf>)



Young people aged 15-19 years in the ACT - 3003

(Australian Bureau of Statistics)



ROAD DEATHS WITHIN THE STATE OF NEW SOUTH WALES IN AUSTRALIA - 2004

AGE	0-9	10-19	20-29	30-39	40-49	50-59	60-69	TOTAL
NUMBER	20	59	111	79	62	57	40	428

Sample Writing Task 2

ACT Scaling Test 2010

Writing Test

DIRECTIONS TO CANDIDATES

The time allowed for this test is **2 hours 30 minutes**.

You are required to write approximately 600 words, discussing a major issue raised in the material provided in this booklet. You should develop a clear argument, and you should feel free to agree or disagree with any opinion expressed in the material.

You should begin by reading and thinking about the material provided. Your first task is to select an issue that you wish to write about, and to consider possible titles for your piece of writing.

The material on the next two pages is to assist you in developing your argument about the issue you have chosen. You do not have to refer to any of the material specifically.

The time allowed for the test gives you plenty of time for thinking, planning, drafting, re-drafting and editing your piece of writing. For the last stage of this process, you may find the checklist on the last page of this booklet helpful.

Pens and biros only (not pencils) may be used for writing the final version. Loose paper will be provided for notes, plans, rough drafts, etc.

Since examiners will take into account only what is written in the answer book, make sure that you leave yourself sufficient time to write out the final version of your piece of writing.

DO NOT TURN THE PAGE UNTIL YOU ARE TOLD.

Read carefully the material on these two pages.

Write an essay of about 600 words, giving your point of view on the major issue raised in the material.

You need not refer to any of the material specifically, but you must deal with the major issue in it.

Give your essay a clear title.

Do not summarise the material.

You should assume you are writing to an intelligent adult audience.

Note that scripts of significantly more than 600 words will not be read in full.

A higher education worth having?

Nigel Hoffman

Many of the students now sweating over their HSC examinations have already elected to go to university, and most have a pretty clear idea of what is in store for them there. They see university primarily as vocational preparation, a necessity if one is to get anywhere in the world.

Most would be surprised to hear that a main task of universities was once to educate the souls of students, to help them come to terms with questions about the mysteries of life and the human being, about how to fashion a life worth living.



"If nothing else, school has prepared me for a lifetime of backpacking."

The occupations and earnings of young Australians: the role of education and training

Gary Marks

The results of this research provide a positive message for education and training. In general, post-school education and training leads to higher status occupations and, in particular, higher earnings compared to not doing any further study or training. The fact that the results indicate that social background plays only a small role in accounting for differences in occupational status and earnings indicates that education is enhancing social mobility.

Within this broadly positive picture, it is clear that not all forms of post-secondary education and training are equally beneficial, at least in terms of the measures of occupation and earnings used here. Apprenticeships and especially university degrees tend to have stronger effects on earnings and occupations than other forms of post-secondary education and training at this early stage of young people's careers.

A response from Josh

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The universities of the past admired by Nigel Hoffman catered purely for the children of the wealthy classes. Those young adults had no need to worry about how they were going to put food on the table and provide shelter for their future families, so they were quite happy to indulge in learning for the love of it. The vast majority of modern university students have accrued large student debts, foregone years of paid employment for their education and need to earn money. They cannot rely on a wealthy family to set them up for life.

Boosting your value without traditional education

One of the greatest benefits of the information age is that it has levelled the playing field between those who know and those who need to know. Just as the printing press helped to widen literacy beyond the ruling class in the 15th century, so too has the Internet widened access to nearly any topic imaginable to anyone with a computer in the 21st century. Not too long ago, anyone who wanted to gain a high degree of knowledge and skills had to attend college. Today, an exceptional online library and a greater appreciation of learning through real-life experience has widened the learning opportunities.

Is education worth it?

Michelle Hufton

The age-old debate of whether gaining a tertiary qualification is worth it has definitely been reignited recently when the media reported that new education graduates are unable to find employment. But is the debate really about whether tertiary education is worth it or is there another piece of the equation that deserves greater attention?

If you chose to undertake tertiary study with the goal of finding full-time employment, it is not whether you can obtain your employment goal with or without a degree but what are the employment trends of your chosen career path. A standard university undergraduate degree will take between three to four years to complete when studying full time. When commencing studies it is not about how many employment opportunities there are at the time of starting your degree, but what will be available when you graduate in three to four years time.

A University Poll 2008

Which of the following comes closest to your view? Students:

	Frequency	Percent
Should go to university	553	46
Should take any decent job offer	328	27
(Neither)	279	23
(Don't know/Not sure)	38	3
(Refused)	3	1

Would you say universities are teaching students the important things they need to know, or universities are failing to teach students the important things they need to know?

	Frequency	Percent
Teaching the important things	623	52
Failing to teach the important things	329	27
(Don't know/Not sure)	244	20
(Refused)	4	1

