MSAP
Mature Students Admissions Pathway

Sample Questions

Module 1 – Written English (1 hour)
Module 2 – Reasoning in the Humanities and Social Sciences (1 hour)
Module 3 – Reasoning in the Sciences, Mathematics and Social Sciences (1 hour)

This booklet contains sample questions only.

For detailed advice and tips about the test, please refer to the MSAP website and the Practice Test booklet available for purchase.

Please print required pages only
Sample Topics for MSAP Module 1 – Written English

Directions
You are required to produce two pieces of writing – one in response to a topic from Task A, and one in response to a topic from Task B.

• Task A is a more formal public affairs issue that invites argument.
• Task B is a less formal topic that invites more personal reflection.
• One hour is allocated for this test, with an additional five minutes reading time.
• Your responses to the topics are written directly onto the test paper. You should write your essays neatly in pen.
• Use a planning page to organise your thoughts before you commence writing.
• Write the number of the topic you are responding to at the top of each response. NB: Do not try to address all of the other topics in your response.
• Give each piece of writing a title that will help orient the reader to the approach you are taking.
• No extra paper is to be used. Only one test booklet is permitted per candidate.

The following themes and topics indicate the kind of stimulus material that will be offered in the real test.

Topics

Task A: Discussion of a current affairs theme – Respond to one (1) topic from Task A.

1 Our society is changing a great deal, but change is not always progress, and there are some ways in which our society is changing for the worse.
2 There has never been a time in human history when so many people have been able to live a safe and secure life, and we have science and technology to thank for such benefits.
3 Science and technology have brought many benefits, but they have also brought problems that may eventually negate those benefits.
4 Science has made great progress in understanding the physical world, but science has not made much progress in understanding the human world.

Task B: Personal point of view – Respond to one (1) topic from Task B.

5 Friendship is something that most people see as very important, but most friendships turn out to be superficial and fragile.
6 Romances come and go, but it is friendship that remains.
7 It is important that we learn to be confident within ourselves rather than dependent on the good opinion of others.
8 You have to work at a friendship, because without tolerance and respect, even the best friendships soon disappear.
MSAP Module 2 –
Reasoning in the Humanities and Social Sciences
Sample multiple-choice questions

UNIT 1

Question 1

Which two of statements (i) – (iv) below are most similar to each other in the attitude to equality presented?

(i) Although people possess unequal powers, they nonetheless deserve equal rights.

(ii) People are made by nature unequal. It is vain, therefore, to treat them as if they were equal.

(iii) Kneeling ne’er spoil’d silk stocking; quit thy state; 
All equal are within the church’s gate.

(iv) The wealth of a nation consists more than anything else in the number of superior people it harbours.

A statements (i) and (iii)
B statements (ii) and (iii)
C statements (i) and (iv)
D statements (iii) and (iv)
"They all work in their own homes now, but they still get together for car pool reunions."

2. The cartoon is a comment on
   A corporate loyalty.
   B the value of teamwork.
   C the social implications of a casualised workforce.
   D the social implications of a decentralised workforce.

3. The cartoon suggests that current work practices are
   A quaint.
   B congenial.
   C unsatisfying.
   D unproductive.
UNIT 3

Question 4

*The poem in this unit is on the subject of war.*

**Grass**

Pile the bodies high at Austerlitz and Waterloo
Shovel them under and let me work —
I am the grass; I cover all.

And pile them high at Gettysburg
And pile them high at Ypres and Verdun
Shovel them under and let me work.
Two years, ten years, and passengers ask the conductor:
What place is this?
Where are we now?

I am the grass.
Let me work.

*Carl Sandburg*

*Note:* The places mentioned in the poem were sites of battles involving a great loss of life.

4 Which one of the following best describes the tone of the poem?

A sympathetic, with a note of nostalgia
B bitter, with a note of derision
C compassionate, yet irritated
D contemptuous, yet humble
UNIT 4

Questions 5 – 9

This unit is based on two extracts from a nineteenth-century novel. Lydgate is a young doctor who has recently come to the town of Middlemarch. Rosamond Vincy is the daughter of the mayor. The passage describes Lydgate’s and Rosamond Vincy’s early impressions of each other.

As he walked away from Mr Vincy’s, Lydgate thought of Rosamond and her music only in the second place; and though, when her turn came, he dwelt on the image of her for the rest of his walk, he felt no agitation, and had no sense that any new current had set into his life. He could not marry yet; he wished not to marry for several years; and therefore he was not ready to entertain the notion of being in love with a girl whom he happened to admire. He did admire Rosamond exceedingly; but that madness which had once beset him about Laure was not, he thought, likely to recur in relation to any other woman. Certainly, if falling in love had been at all in question, it would have been quite safe with a creature like this Miss Vincy, who had just the kind of intelligence one would desire in a woman — polished, refined, docile, lending itself to finish in all the delicacies of life, and enshrined in a body which expressed this with a force of demonstration that excluded the need for other evidence. Lydgate felt sure that if ever he married, his wife would have that feminine radiance, that distinctive womanhood which must be classed with flowers and music, that sort of beauty which by its very nature was virtuous, being moulded only for pure and delicate joys.

But since he did not mean to marry for the next five years — his more pressing business was to look in Louis’ new book on Fever, which he was specially interested in, because he had known Louis in Paris, and had followed many anatomical demonstrations in order to ascertain the specific differences of typhus and typhoid.

He was an ardent fellow, but at present his ardour was absorbed in love of his work and in the ambition of making his life recognised as a factor in the better life of mankind — like other heroes of science who had nothing but an obscure country practice to begin with.

Poor Lydgate! or shall I say, Poor Rosamond! Each lived in a world of which the other knew nothing. It had not occurred to Lydgate that he had been a subject of eager meditation to Rosamond, who had neither any reason for throwing her marriage into distant perspective, nor any pathological studies to divert her mind from that ruminating habit, that inward repetition of looks, words, and phrases, which makes a large part of the lives of most girls. He had not meant to look at her or speak to her with more than the inevitable amount of admiration and compliment which a man must give to a beautiful girl. But Rosamond had registered every look and word, and estimated them as the opening incidents of a preconceived romance — incidents which gather value from the foreseen development and climax. In Rosamond’s romance it was not necessary to imagine much about the inward life of the hero, or of his serious business in the world; of course, he had a profession and was clever, as well as sufficiently handsome; but the piquant fact about Lydgate was his good birth, which distinguished him from all Middlemarch admirers, and presented marriage as a prospect of rising in rank and getting a little nearer to that celestial condition on earth in which she would have nothing to do with vulgar people, and perhaps at last associate with relatives quite equal to the county people who looked down on the Middlemarchers.
5 What interests Rosamond most about Lydgate?

A his money  
B his profession  
C his social status  
D his personal attractiveness

6 Lydgate imagines that his future wife will be

A passionate and desirable.  
B able to share his interests.  
C intelligent and challenging.  
D admirable but undemanding.

7 In what sense does Lydgate feel ‘safe’ (line 8) about Miss Vincy?

A He is sure he will never fall in love again.  
B He feels that women like her are not attractive to him.  
C He feels confident that she would not make him lose control over his feelings.  
D He thinks that he has at last found someone who will provide him with love and security.

8 Which one of the following best describes Lydgate’s motivation in his work?

A intellectual curiosity, ambition and altruism  
B a fanatical obsession with fever research  
C the need to establish himself financially  
D a desire for status to impress Rosamond

9 Later in the novel Lydgate and Rosamond marry, and their marriage is a disaster.  
What emerges most strongly from the passage to foreshadow difficulties in the marriage?

A The attraction between them is only physical.  
B Neither appreciates the strengths of the other.  
C Neither has given much thought to the future.  
D Neither has any sense of the other’s inward life.
UNIT 5

Questions 10 – 13

The following passage describes the experiences of a man who has undergone surgery that has given him vision after a lifetime of blindness.

One man when shown an orange a week after beginning to see, said that it was gold. When asked, ‘What shape is it?’ he said, ‘Let me touch it and I will tell you!’ After doing so, he said that it was an orange. Then he looked long at it and said, ‘Yes, I can see that it is round.’ Shown next a blue square, he said it was blue and round. A triangle he also described as round. When the angles were pointed out to him he said, ‘Ah. Yes, I understand now, one can see how they feel.’ For many weeks and months after beginning to see, the person can only with great difficulty distinguish between the simplest shapes, such as a triangle and a square. If you ask him how he does it, he may say, ‘Of course if I look carefully I see that there are three sharp turns at the edge of one patch of light, and four on the other.’ But he may add peevishly, ‘What on earth do you mean by saying that it would be useful to know this? The difference is only very slight and it takes me a long time to work it out. I can do much better with my fingers.’ And if you show him the two shapes the next day he will be quite unable to say which is a triangle and a square.

10 One week after beginning to see, the man
   A related shape directly to visual images.
   B formed visual impressions of shape indirectly.
   C spontaneously reduced his dependence on his sense of touch.
   D was developing a visual appreciation of shape through association with colour.

11 The man’s mistake about the square (lines 3 and 4) suggests that
   A his eyesight was still impaired.
   B he could not make full use of visual clues.
   C the idea of shape was meaningless for him.
   D colour makes shape perception more difficult.

12 The passage suggests that the man refers to the shapes as ‘one patch of light’ (line 8) because
   A he does not know the names of shapes.
   B he does not associate visual images with shapes.
   C he wants to be precise in order to make his reasoning clear.
   D he wants to choose wording which will convey the difficulty of his task.

13 The passage presents shape perception as generally dependent on
   A experience.
   B keen eyesight.
   C inherited skills.
   D colour perception.
MSAP Module 3 –
Reasoning in the Sciences, Mathematics and
Social Sciences
Sample multiple-choice questions

UNIT 6

Question 14
In the grid below, the letters represent different whole numbers of less than 20. The numbers to the
right and below the grid are row and column totals.

For example, \(Q + L + Z + Z = 46\).

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<td>30</td>
<td>38</td>
<td>X</td>
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14 The value of \(Q\) is

A 7.
B 9.
C 11.
D 13.
UNIT 7

Questions 15 – 19

In some areas of the world, marine birds such as kelp gulls feed on mussels which have been deposited on the beaches. To break open the shells, the birds carry the mussels to heights and drop them onto hard surfaces, such as rocks or wet beach sand.

Experimental evidence indicates that the minimum drop height required to fracture a mussel shell depends on its size, and also on the nature of the surface onto which it is dropped. Moreover, the speed on impact with the ground can be related to the mussel’s drop height and its shell length. The graphs in Figures 1 to 4 show the relationships between the size, impact speed, and drop height of mussels. The figures are based on the results of extensive mussel dropping experiments that attempted to simulate real conditions.

Assume that all mussels referred to in the following questions are described by these relationships.

![Figure 1](image1.png)

![Figure 2](image2.png)

![Figure 3](image3.png)
15 An 80 gram mussel has a shell area closest to

A  20 square centimetres.
B  24 square centimetres.
C  40 square centimetres.
D  45 square centimetres.

16 Which one of the following is the smallest drop height required to fracture three mussels with lengths 75 millimetres, 85 millimetres, and 100 millimetres, when all three are dropped onto wet beach sand?

A  1.90 metres
B  2.35 metres
C  2.67 metres
D  3.00 metres
17. Two mussels are dropped from a height of 2.5 metres onto wet beach sand. Mussel X has a mass of 30 grams and mussel Y has a mass of 60 grams. According to the available evidence,
   A. only mussel X will fracture.
   B. only mussel Y will fracture.
   C. both mussels will fracture.
   D. neither mussel will fracture.

18. For a group of mussels, all of which have a shell length of 80 millimetres, the difference between the drop heights required to fracture the mussels when they drop onto rock and wet beach sand is closest to
   A. 0.6 metres.
   B. 1.0 metres.
   C. 1.9 metres.
   D. 2.5 metres.

19. Which of the following is closest to the lowest impact speed required to fracture a 30 gram mussel by impact with wet beach sand?
   A. 5.5 metres per second
   B. 6.8 metres per second
   C. 8.4 metres per second
   D. 10 metres per second
UNIT 8

Questions 20 – 23

Attached to Runalong Fire Station there are seven firefighters (1, 2, 3, 4, 5, 6, 7). It is necessary to have three firefighters at the station each night in case of emergency, and the Firefighters’ Union requires that each firefighter works the same number of nights.

Schedules I–IV were prepared for consideration.

<table>
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<th>III</th>
<th>IV</th>
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<td>{7,1,3}</td>
<td>{6,1,3}</td>
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</table>

20 Which one of the schedules meets the requirements of the Firefighters’ Union?

A I  
B II  
C III  
D IV

Questions 21 – 23 refer to the following additional information:

A schedule can be thought of as a set of $v$ objects (in this case, firefighters) that have to be arranged into $b$ sets (in this case, one set for each day of the week) all of size $k$ and such that each object occurs the same number of times ($r$) in the schedule and only once in any set. For the firefighters’ schedules, $v = 7, b = 7, k = 3,$ and $r = 3$.

21 If $v = 3, b = 6, k = 1, r = 2,$ which one of the following completes the schedule $\{1\}, \{2\}, \{3\}, \{1\}, \{2\}, \ldots$?

A $\{1\}$  
B $\{2\}$  
C $\{3\}$  
D neither $\{1\}$, nor $\{2\}$ nor $\{3\}$

22 The schedule $\{1,2\}, \{2,3\}, \{x,y\}$ is a schedule for which $v = 3, b = 3, k = 2, r = 2,$ if

A $x = 1, y = 2.$  
B $x = 1, y = 3.$  
C $x = 2, y = 2.$  
D $x = 2, y = 3.$

23 The schedule $\{1,2,3\}, \{4,5,6\}, \{7,8,9\}, \{1,4,7\}, \{2,5,8\}, \{3,6,9\}, \{1,5,9\}, \{2,6,7\}, \{3,4,8\}, \{1,6,8\}, \{2,4,9\}, \{x,y,z\}$

is a schedule for which $v = 9, b = 12, k = 3, r = 4,$ if

A $x = 1, y = 2, z = 4.$  
B $x = 1, y = 3, z = 5.$  
C $x = 2, y = 4, z = 6.$  
D $x = 3, y = 5, z = 7.$
UNIT 9

Questions 24 – 26

When fighting forest fires, a major problem for firefighters is dealing with the heat. Heat enters, leaves or is produced in a firefighter’s body by the following processes:

I radiation — heat from the fire and the sun radiate to the firefighter’s body
II conduction/convection — body heat is carried away by the surrounding air
III metabolism — heat is produced in the firefighter’s body
IV evaporation of sweat — heat is removed from the firefighter’s body when sweat evaporates from skin and clothing

In a study of heat balance in firefighters, two groups of firefighters built a firebreak — a hard physical task. One group did so next to a fire. The other group did exactly the same work under the same conditions except that no fire was burning nearby. The table gives the average results for the firefighters in the two groups.

<table>
<thead>
<tr>
<th>Process</th>
<th>Amount of heat gained or lost per minute by the body</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Radiation</td>
<td>gain of 260 joule</td>
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<tr>
<td>Conduction / convection</td>
<td>loss of 60 joule</td>
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<tr>
<td>Metabolism</td>
<td>gain of 488 joule</td>
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<tr>
<td>Evaporation of sweat</td>
<td>loss of 688 joule</td>
</tr>
<tr>
<td></td>
<td>no fire nearby</td>
</tr>
<tr>
<td>Radiation</td>
<td>gain of 51 joule</td>
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<td>Conduction / convection</td>
<td>loss of 80 joule</td>
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<tr>
<td>Metabolism</td>
<td>gain of 561 joule</td>
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<tr>
<td>Evaporation of sweat</td>
<td>?</td>
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</tbody>
</table>

- Assume that the figures given apply to any individual firefighter.
- Although some of the processes can transfer heat to or from a firefighter, this unit and the table refer to net gains or losses of heat by each process.
24 When building a firebreak, the body of a firefighter

A loses heat by radiation and gains heat by conduction/convection.
B loses heat by both radiation and by conduction/convection.
C gains heat by radiation and loses heat by conduction/convection.
D gains heat by both radiation and by conduction/convection.

25 The heat lost by evaporation of sweat from the body of a firefighter in one minute while building a firebreak without a fire nearby is

A 532 joule.
B 590 joule.
C 612 joule.
D 688 joule.

26 Which one of the following increases when a firefighter moves from an area where there is no fire nearby to an area where there is a fire nearby?

A the amount of heat produced per minute by metabolism
B the amount of heat lost per minute by conduction/convection
C the amount of heat lost per minute by the evaporation of sweat
D none of A or B or C
ANSWERS

<table>
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<th>Sciences / Mathematics</th>
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<td><strong>Unit 8: Runalong fire station</strong></td>
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