



Wednesday 11 June 2014 – Morning

LEVEL 2 AWARD THINKING AND REASONING SKILLS

B901/01 Unit 1 Thinking and Reasoning Skills

Candidates answer on the Question Paper.

OCR supplied materials:

None

Other materials required:

None

Duration: 1 hour



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. If additional space is required, you should use the lined pages at the end of this booklet. The question number(s) must be clearly shown.
- Do **not** write in the bar codes.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **60**.
- Quality of written communication will be assessed in questions 9 and 10.
- This document consists of **16** pages. Any blank pages are indicated.

SECTION A

You are advised to spend no more than 30 minutes on this Section.

It is worth 30 marks.

Answer all the questions in this Section.

1 (a) Consider the argument in the box below.

Genetically modified (GM) crops are resistant to pests and droughts. They also produce more food on less land at lower costs. So, great benefits come from GM crops. Therefore, continuing to invest in GM foods is essential to tackling Third World starvation.

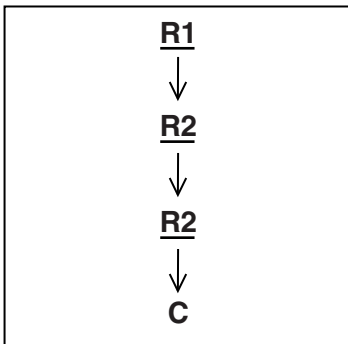
Mark up the argument as follows:

(i) Underline the main conclusion. [1]

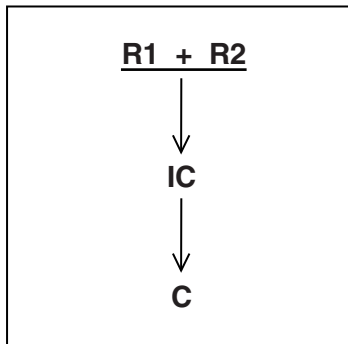
(ii) Circle a conclusion indicator word. [1]

(b) Which of the following is the correct argument map for the above argument?

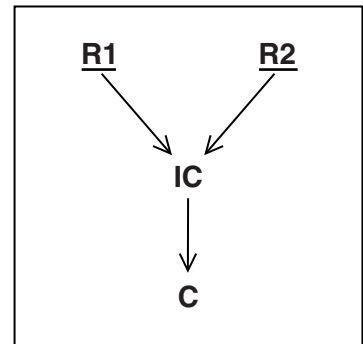
Map A



Map B



Map C



(i) Circle the correct map. [1]

(ii) Explain why this is the right answer.

.....

.....

..... [2]

2 An animal rights activist is speaking on the radio.

I want to draw attention to the torture that angling inflicts on fish in the name of sport. In some respects fish are similar to humans as they feel pain. Inflicting pain on others is wrong. Therefore, fish should be allowed to live in freedom, like humans, until they die a natural death.

(a) The animal rights activist argues that ‘fish should be allowed to live in freedom’.

Below there are four different meanings of the word ‘freedom’.

Which definition best fits the way the animal rights activist uses the word?

Tick the correct answer.

- Act and live as one chooses.
- Being released from confinement.
- Live safely without harm.
- Speak or act without fear.

[1]

(b) The animal rights activist goes on to say:

Where will it all end? If fishermen think it's OK to inflict pain on fish, then they will do the same to other animals and could then end up torturing humans. Fishing is just legalised torture. I know a respected Professor of French who feels the same way, so fishing should be banned.

(i) Identify and explain the flaw in the argument made by the animal rights activist.

Flaw:

Explanation:

.....

.....

[2]

(ii) Identify and explain a second weakness in the argument made by the animal rights activist.

Weakness:

Explanation:

.....

.....

[2]

- 3 A driving instructor has collected the following information about her clients who have recently passed their tests.

Personal details				
Name	Gender	Age	Frequency of lessons	Passed their test on which attempt?
Asif	Male	17–25	Twice a week	Third
Barry	Male	26–45	Weekly	Second
Chloe	Female	17–25	Twice a week	First
Davina	Female	26–45	Fortnightly	Fourth
Esther	Female	46–70	Weekly	Second
Farouk	Male	26–45	Weekly	Second
George	Male	46–70	Weekly	Second
Harry	Male	46–70	Fortnightly	Fifth
Imogen	Female	17–25	Twice a week	First
Jena	Female	17–25	Twice a week	First

- (a) In the table there are a number of patterns which can be identified in the details of the driving instructor’s clients.

Identify any **three** patterns in the data.

First pattern:

.....

Second pattern:

.....

Third pattern:

.....

[3]

(b) Keith, a 33-year-old man, joins the driving school and takes lessons twice a week. If the patterns in the table continue, give **two** reasons why he will not pass his test first time.

Reason 1:

.....

Reason 2:

.....

[2]

4 Rob, Jordan, Ken, Samuel and Boris have taken part in a 400 metres race.

Use the information provided below to identify which competitor won and the final positions of the others.

- Ken, who did not win, completed the course faster than some of the other competitors.
- Rob completed the course in a faster time than just two of the other competitors: Samuel and Jordan.
- Samuel was not the slowest.

(a) Use the matrix to work out the positions of the competitors following the race.

	Winner	Second	Third	Fourth	Fifth
Boris					
Jordan					
Ken					
Rob					
Samuel					

- (i) The winner was [1]
- (ii) The person who came second was..... [1]
- (iii) The person who came third was [1]
- (iv) The person who came fourth was [1]
- (v) The person who came fifth was..... [1]

(b) Which of the following is both a necessary **and** sufficient condition of winning a race?

Tick the correct answer.

Being the fastest runner and finishing first.

Completing the race and not getting disqualified.

Finishing first and not getting disqualified.

[1]

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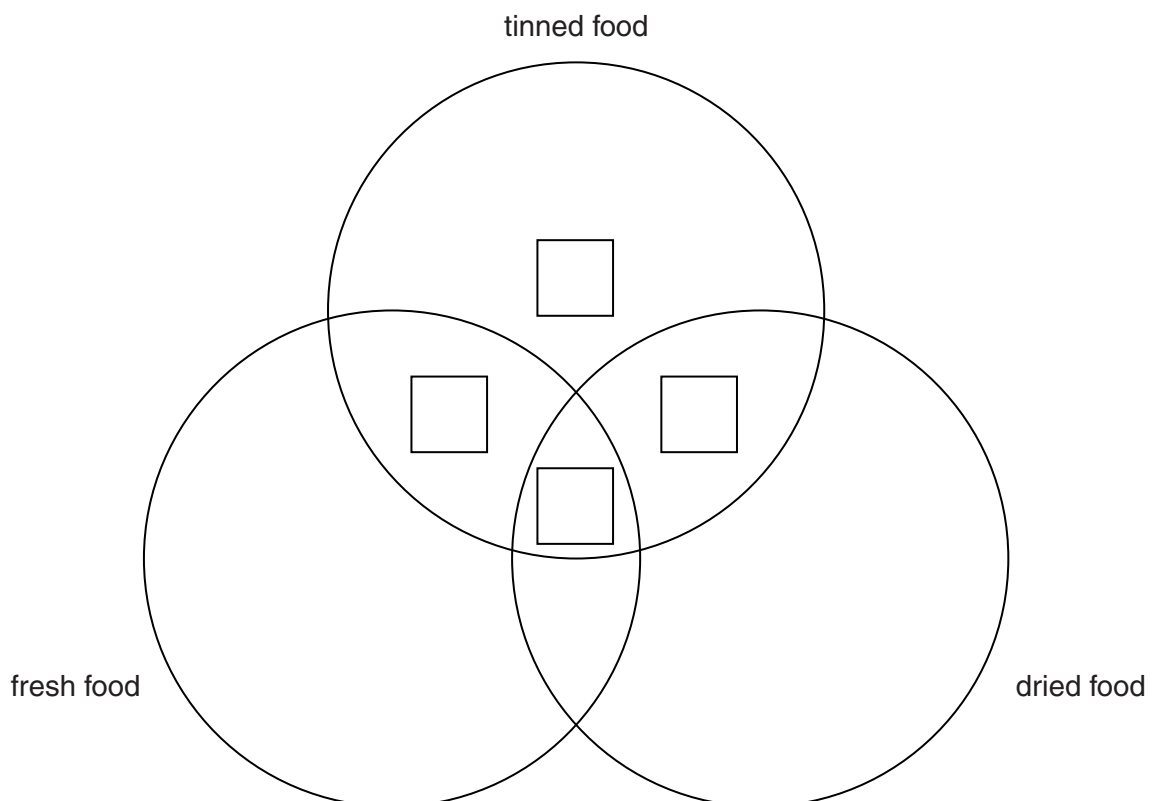
Question 5 begins on page 8

PLEASE DO NOT WRITE ON THIS PAGE

5 A local vet conducted a survey of 25 customers to identify the type of food they fed their dogs. She collected the following information:

- All 25 customers fed their dogs tinned food.
- 6 customers fed their dogs a mixture of dried, tinned and fresh food.
- 11 customers fed their dogs some tinned food and some dried food.
- 4 customers fed their dogs only tinned food.

(a) Work out **how many** customers fed their dogs a mixture of tinned food and fresh food. Show your answer by completing the Venn Diagram below, entering the correct numbers into all four boxes provided.



[3]

(b) In the window of her premises, the vet is advertising the following:

Did you know that dried food is best for your dog?

It is great for their teeth, digestion and overall health. It is also easily stored and lasts for ages. Come in and ask us about our own special recipe which we are now selling at a great price.

(i) Explain one strength in the credibility of the vet in making the claims in this advertisement.

.....

.....

..... [2]

(ii) Explain one weakness in the credibility of the vet in making the claims in this advertisement.

.....

.....

..... [2]

6 Jenny and Moses are driving across the USA. They set off from Phoenix in the state of Arizona at 12 noon and arrive at their planned destination of San Diego on the west coast in the state of California at 16:00. However, the journey took 5 hours to drive.

Give **two** explanations for this:

1:

.....

2:

.....

[2]

SECTION B

You are advised to spend no more than 30 minutes on this Section.

It is worth 30 marks.

Answer all the questions in this Section.

Read the following documents about grade retention* carefully.

* grade retention means a student is kept back and repeats a school year.

Document A: Statement of a headteacher of a UK school who wishes to introduce grade retention.

Some of the leading countries in the world use grade retention – Australia, New Zealand, USA and Canada, for example. There are a number of reasons why I wish to introduce this: some students who automatically move up to the next school year in September cannot do the work. They haven't built enough foundations in the previous year, and so are being set up for further failure. When students go up automatically, it sends the message that they can get by without working hard. Furthermore, it forces teachers to deal with students who may be struggling while trying to teach those who are working at the right level. There are very few solutions to this problem but I believe grade retention is the best option.

Document B: Statement of an Australian student who has stayed back and repeated a school year.

I discussed this with my parents and teachers. My teachers said it wasn't because I was 'stupid'; just that the illness I'd had during the year meant that I had missed a lot of school. My teacher assured me I would not be bullied by other students and I wasn't. Therefore, I think repeating a year was really helpful. This is because I was able to focus far better on my work and I got good grades as I was already familiar with some of it.

Document C: Statement of a UK student who does not want to stay back and repeat a school year.

It's not fair that I should be asked to repeat another year. Just because I missed lessons they are saying I might have to stay back while my friends start Year 9 in September. It's the teachers' fault if a student does badly at school. My dad says staying back is a bad idea as well. He knows about everything.

Document D: Statement of an academic researcher.

Research has demonstrated that students who repeat a year experience a decrease in self-confidence and motivation. Overall results show no improvement and in some cases students' grades are worse. The implication is that repeating a year is not a beneficial strategy.

Document E: Results of a survey conducted in a US school.

After one of their classmates was held back a year, 30 students in a US school were asked to select their top fear for the future from a list of six choices.

The top fear of the students in the survey was:

- Grade retention 37%
- Losing a parent 23%
- Being seriously ill 17%
- Being bullied 13%
- Failing exams 7%
- Not having a date for a prom 3%

7 The headteacher in Document A says: 'There are very few solutions to this problem but I believe grade retention is the best option'.

(a) Suggest **two** other options that could be considered as solutions to the problem of students being moved up a school year before they are ready.

Option 1:

Option 2: [2]

(b) Suggest **two** relevant criteria that could be used to decide on the best option to help under-performing students.

Criterion 1:

.....

Criterion 2:

..... [2]

8 Consider the results of the survey in Document E.

(a) Identify three weaknesses in the way that the survey was conducted.

Weakness 1:

.....

Weakness 2:

.....

Weakness 3:

.....

[3]

(b) The class draws the following conclusions from their survey. Which of these can reliably be drawn from the survey results?

Circle yes or no.

	Conclusion can be drawn	
97% of these students were not worried about whether they had a date for the prom	Yes	No
Fewer students chose being bullied than chose losing a parent as their top fear	Yes	No
No students were concerned about global warming	Yes	No
Only 17% of students were frightened of serious illness	Yes	No

[4]

(c) Explain why the following conclusion cannot be drawn.

37% of US students feared grade retention the most.

.....

..... [1]

ADDITIONAL ANSWER SPACE

If additional answer space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margins.

A large area of lined paper for writing answers. It features a vertical margin line on the left side and horizontal dotted lines for writing. The lines are evenly spaced and extend across the width of the page.

A large area of the page is reserved for writing, featuring a vertical solid line on the left side and horizontal dotted lines extending across the page.



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