

**Wednesday 13 June 2012 – Afternoon**

**LEVEL 2 AWARD THINKING AND REASONING SKILLS**

**B901** 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**.
- You will be assessed on the quality of your written communication in questions 15 and 16. The quality of your grammar, spelling and punctuation will affect the mark in these questions.
- 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 journalist interviewed four different celebrities. Each celebrity was quoted as follows:

Celebrity W: My life involves a lot of travel. I have homes in Europe and in the USA. I always spend Christmas with my family.

Celebrity X: The reason I have been successful is because I work hard and I am always willing to take on new challenges.

Celebrity Y: Children like my songs and so do their parents. So tickets for my next concert should sell quickly.

Celebrity Z: The critics of my last film were just idiots. They are a pack of liars. They deserve to be shot.

Complete the following sentences by inserting the letter for the appropriate celebrity in the space provided.

- (a) Celebrity \_\_\_\_\_ gives an argument. [1]
- (b) Celebrity \_\_\_\_\_ gives an explanation. [1]
- (c) Celebrity \_\_\_\_\_ gives a list of information. [1]
- (d) Celebrity \_\_\_\_\_ gives a rant. [1]

- 2 A teacher argued as follows:

Your parents should be pleased with you as you will get a high mark in the exam. This is because you have a good understanding of all the skills and the exam is easy.

Mark up the argument as follows:

- (a) circle **two** indicator words; [2]
- (b) put brackets around the intermediate conclusion; [1]
- (c) underline the main conclusion. [1]

3 Consider the argument in the box below:

The teacher told me off for dropping litter in class. But she does it as well. So it cannot be wrong.

Identify and explain the flaw in the argument.

(a) Name of flaw: ..... [1]

(b) Explanation: .....  
.....  
..... [1]

4 Consider the argument in the box below:

Bullying is on the increase in British schools. A survey of teenage girls in three London secondary schools revealed that 60% claimed to have been bullied at some time in their lives.

Identify **four** ways in which the survey does **not** provide strong support for the claim that “Bullying is on the increase in British schools”.

(a) .....  
..... [1]

(b) .....  
..... [1]

(c) .....  
..... [1]

(d) .....  
..... [1]

5 Consider the following claim:

If someone has ten million pounds then they must be rich.

Does this mean having ten million pounds is sufficient for being rich or does it mean having ten million pounds is necessary for being rich?

(a) Circle the correct answer.                    sufficient                    necessary                    [1]

(b) Explain your answer.

.....  
.....  
.....  
..... [2]

6 Consider the following argument:

Not giving money to charity when there is a famine leads to the death of the famine victims. Causing the death of other human beings is murder. So not giving money to charity is just the same as murder.

Identify and explain **two** differences between murder and not giving money to charity.

(a) Difference 1 .....  
.....  
..... [2]

(b) Difference 2 .....  
.....  
..... [2]

- 7 A student collects the following information about the number of medals won in international singing and dancing competitions over a period of sixty years.

This is presented in Table 1:

**Table 1**

Country	Medals won 1950 to 1970	Medals won 1970 to 1990	Medals won 1990 to 2010	Population (millions)
China	30	20	40	1400
USA	55	25	25	300
Russia	30	20	12	200
Japan	25	20	15	150
Germany	10	20	35	80
Britain	12	10	15	70
France	10	15	10	60
Australia	35	40	25	20

- (a) Which country has won the most medals during this whole period?  
..... [1]
- (b) Which country has won the most medals during this whole period relative to its population?  
..... [1]
- (c) Which country has shown the most improvement in its success in winning medals during this whole period?  
..... [1]
- (d) What do Russia and Japan both have in common during this whole period?  
..... [1]
- (e) Assuming the pattern continues into the future, how many medals would you expect Japan to win during the period 2030 to 2050?  
..... [1]

- 8 Two female students, Annabel and Clare, and two male students, Barry and Dennis, all enjoy **different** subjects at school.

Use the information provided below to identify which student enjoys which subject.

- The girl who enjoys Physics is friends with the boy who enjoys History.
- The boy who enjoys History dislikes Barry.
- The person who enjoys English Literature is a good friend of Barry.
- Dennis never talks to Clare.

Use the matrix to work out which student enjoys which subject and then complete the sentences below.

	English Literature	History	Physics	Thinking and Reasoning Skills
Annabel				
Barry				
Clare				
Dennis				

- (a) Annabel enjoys ..... [1]
- (b) Barry enjoys..... [1]
- (c) Clare enjoys..... [1]
- (d) Dennis enjoys ..... [1]

**7**  
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**TURN TO PAGE 8 FOR SECTION B**  
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**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 carefully:

**Document A: Background Information from a recent scientific textbook**

Bovine tuberculosis is a disease of the lungs which is found in many mammals in the UK including deer, foxes, rats, badgers and even domestic cats. It is a serious problem for dairy farmers who keep cows for their milk. Cows have to be tested for the disease every four years. If the cows are found to be infected they have to be slaughtered at great cost both to the farmer and to the government who pay some compensation to the farmer. Testing is necessary because the cows can be infected with the disease for many years before the symptoms, such as weight loss and coughing, are obvious to the farmer. The disease can spread from cows to humans but such cases are rare.

**Document B: Witness statement of a dairy farmer based in the south-west of England**

Dairy farming is central to the economy of the south-west of England. We have one of the largest concentrations of dairy farms in England. Over the last thirty years there has been a huge increase in cases of bovine tuberculosis in our cows. At the same time there has been a huge increase in the disease in badgers which are also common in this area. So it is obvious the disease is spreading from badgers to our cows. We need to protect our cows from the disease. We must kill all the badgers in this area now. It is the only solution.

**Document C: Witness statement of a government scientist**

It is possible that badgers are the main cause of the increase of the disease in cows. Badgers live in underground burrows in the countryside. Research has shown that badgers frequently enter fields where cows graze. More worryingly, there is evidence from the presence of their urine and droppings that they also often get into farm buildings where cows are sheltered. They even get into food stores and water troughs which the cows use. So it is certainly possible that the badgers infect the food, drink and grazing land and this causes the cows to catch the infection. However there are many other actions which could be taken to protect the cows from the spread of disease. It is not necessary to kill all badgers.

**Document D: Witness statement of an animal rights campaigner**

We could vaccinate badgers against the disease. That would be kinder than killing them. Killing badgers is not the solution. Studies in Ireland showed that when small numbers of diseased badgers are killed in one area this just causes the surviving badger population to leave that area and when they do that they spread the disease to new areas. Anyway there is no real proof that badgers are to blame. I blame the farmers. Stop eating meat and save the badger!



9 The farmer in Document B argues:

Over the last thirty years there has been a huge increase in cases of bovine tuberculosis in our cows. At the same time there has been a huge increase in the disease in badgers which are also common in this area. So it is obvious the disease is spreading from badgers to our cows.

Explain the weakness in the farmer's reasoning.

.....  
.....  
..... [2]

10 The farmer in Document B claims that:

So it is obvious the disease is spreading from badgers to our cows.

Identify **one** other possible explanation for the spread of the disease in cows and support this explanation with reference to the documents:

.....  
.....  
..... [2]

11 The animal rights campaigner in Document D claims:

Studies in Ireland showed that when small numbers of diseased badgers are killed in one area this just causes the surviving badger population to leave that area and when they do that they spread the disease to new areas.

Explain how this evidence could be used by the farmer to support his case for killing all badgers.

.....  
.....  
.....  
..... [2]

- 12 The farmer recommends killing all badgers. The animal rights campaigner recommends vaccinating badgers. The scientist claims that:

... there are many other actions which could be taken to protect the cows from the spread of disease.

Assuming badgers are spreading the disease to cows, identify **two** alternative courses of action, other than those suggested by the farmer and animal rights campaigner, which could be taken to stop the spread of disease.

(a) Alternative 1: .....  
.....  
..... [1]

(b) Alternative 2: .....  
.....  
..... [1]

- 13 Identify **two** relevant criteria which could be used for deciding between different courses of action.

(a) Criterion 1: .....  
..... [1]

(b) Criterion 2: .....  
..... [1]

- 14 The animal rights campaigner in Document D recommends that badgers be vaccinated against the disease.

Identify **two** possible problems with this proposal.

(a) Problem 1 .....  
..... [1]

(b) Problem 2 .....  
..... [1]









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