

General Certificate of Education  
June 2006  
Advanced Level Examination



**GENERAL STUDIES (SPECIFICATION B)  
Unit 4 Conflict-Resolution**

**GB4W**

Wednesday 14 June 2006 1.30 pm to 2.30 pm

**For this paper you must have:**

- an 8-page answer book

Time allowed: 1 hour

**Instructions**

- Use blue or black ink or ball-point pen.
- Write the information required on the front of your answer book. The *Examining Body* for this paper is AQA. The *Paper Reference* is GB4W.
- Answer **all** questions.
- Do all rough work in your answer book. Cross through any work you do not want marked.

**Information**

- The maximum mark for this paper is 60.
- The marks for questions are shown in brackets.
- You are reminded of the need for good English and clear presentation in your answers. All questions should be answered in continuous prose. Quality of Written Communication will be assessed in all answers.

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Study the source and answer the **three** questions which follow.

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The National Research Council, a body that advises the US government on scientific issues, claims that meat and milk derived from animal clones is “probably safe” for human consumption. Scientists are seeking to identify “subtle hazards” to human health, which have arisen as a result of the technology used to create clones. Their evaluation is still taking place, and so the current advice is that food from cloned animals should be used for animal fodder rather than for human consumption.

Protest groups believe such food to be unsafe. In Britain, the Consumer Association believes that there are more cost-effective ways of solving the world’s food supply problems and that people are uncomfortable with consuming food from cloned or genetically modified animals.

Another American body, The National Academy for Sciences, reported adverse effects of cloning or genetically modifying animals. A cloned animal can, for example, have higher birth weights than normal, so that they cannot be born naturally. There is a possibility that new genes inserted into the DNA of animals will make proteins, which are not usually present in the human diet. These could produce allergic or even poisonous reactions. There is a chance that the milk and meat from genetically modified cows could mix into the mainstream food supply.

British scientists also fear that genetically modified animals could become an environmental problem, dominating the food supply and wiping out weaker animals. For example, salmon may start life in farms, but may well escape into rivers and seas and their genes will spread through the wild population. Modified species will also establish themselves in new areas of land or water.

According to Ron Gillespie, a marketing official for the American-based Worcester Cloning Company, cloning could make food safer. He says, “You could knock out the gene that causes mad cow disease. That’s the theory, anyway.” A similar group, BIO (Biotechnology Industry Organisation), supports this view. “There is no evidence of any danger from drinking milk or eating food from GM animals. You could even produce animals with less fatty meat.”

Information about food products derived from cloned or genetically modified animals is limited. There is a very small sample size and health and production data are scarce, particularly on animals cloned from adult tissue, such as Dolly the Sheep. Some evidence is available from the 1980s, when different techniques were used.

- 1 Using the source, analyse the nature of the problem and identify the underlying issues. *(15 marks)*
- 2 Identify which parties you consider to be responsible for the problem and analyse the extent of their responsibility, explaining why some might be said to be more responsible than others. *(15 marks)*
- 3 Explain what measures might be taken in the short-term and the long-term to resolve the problem and evaluate the likely success of these measures. *(20 marks)*

A further ten marks will be awarded for communicating in a concise and logical way in an appropriate form. *(10 marks)*

**END OF QUESTIONS**