

الاسم:  
الرقم:مسابقة في مادة اللغة الإنكليزية وأدائها  
المدّة: ساعتان ونصف**Part One: Reading****(Score: 11/20)**

Read the following selection, in which the writer sheds light on the controversial issue of cloning and organ transplantation. When you are through with the reading, answer the questions that follow.

**Xenotransplantation**

- 1 In the last 100 years, the field of organ transplantation has advanced at an astonishing pace. Human-tissue grafting was first performed less than a century ago by the Swiss. In 1950, the first successful kidney transplant occurred at the University of Chicago and was followed by the world's first heart transplant by South African surgeon Christian Bernard in 1967. Recently, a breed of cloned animals was unveiled to the world—an event that already is raising hopes that organ transplants may soon be possible between animals and humans.
- 2 “I think this is a big step forward they've made. I applaud it,” said Dr. Fritz Bach of Harvard Medical School, a researcher studying transplantation from animals to people.
- 3 The transfer of animal organs to humans, or xenotransplantation, pairs two highly controversial technologies—cloning and the use of animals to produce biological materials for human medicine. The goal of xenotransplantation is not unlike that of “pharming”, in which the genetic material of animals is altered to stimulate the growth of certain chemicals. Those chemicals then are extracted for use in human patients. But xenotransplantation takes the idea significantly further.
- 4 Cross-species transplants have failed in the past because the human immune system rejects non-human tissue, often with fatal consequences. But certain animals, which are most physiologically similar to humans, can be genetically engineered to carry human genes that will make their organs appear to the immune system to be human organs.
- 5 The technique is extremely expensive and potentially dangerous. Viruses are integrated into animal genes, and scientists do not yet know if people can become infected with those viruses if they receive an animal-organ transplant. Once researchers isolate and remove the viruses, they will have a single model animal that can be cloned repeatedly to produce organs for human transplants.
- 6 Approximately 66,000 Americans are on the waiting list for organ transplants, according to the Health and Human Services Department. But only about 21,000 transplants occur each year—primarily due to a shortage of organs.
- 7 The firm responsible for the cloned animals, PPL Therapeutics of Edinburgh, Scotland (the same firm responsible for cloning Dolly the sheep), says that xenotransplantation could be soon tested on humans. The company cites financial analysts who believe the market for solid organs alone could be worth \$6 billion.
- 8 However, xenotransplantation is not without controversy. The health implications for organ recipients are not fully tested, and patients receiving animal organs could have severe restrictions placed on their lifestyles.

**9** Recommendations published by Britain’s Xenotransplantation Interim Regulatory Authority suggest that anyone who receives an animal organ should never have unprotected sex and should never have children because of the public health risk. Opponents of the technology also maintain that any virus that could be transmitted from an animal to a human could spread to the rest of the population easily, noting that HIV was likely a cross-species transfer. In addition, animal-rights activists are outraged that animals are being tested and cloned in order to possibly alleviate human medical conditions.

**10** To some scientists, the ultimate goal of this research is not just to “pharm” animals but to clone the most complex animal in existence – the human. “There is a global race, if not a stampede, towards it,” Dr. Patrick Dixon, a leading expert on cloning, told Reuters. “Scientists are ticking off which species they have cloned leading inevitably towards humans ... .” Indeed, the first cloned baby has been the defining image of the start of the third millennium.

### Questions

**A.** In 2-4 sentences, answer the following in your own words.

1. What purposes does the use of historical events in Paragraph 1 serve? (Score: 01.5)
2. How does the writer in Paragraph 6 highlight the need for animal organ transplant? Explain. (Score: 01.5)
3. Explain how Paragraphs 8 and 9 are thematically related. (Score: 01.5)
4. Describe the writer's tone in Paragraph 5. Support your answer with evidence. (Score: 01)

**B.** Refer to Paragraphs 5, 8, and 9 to fill the following table with disadvantages of xenotransplantation, using phrases. Copy the table in your answer booklet. (Score: 01.5)

<b>Disadvantages</b>	1.
	2.
	3.

**C.** Identify the sentence pattern of each of the following: (Score: 01)

1. Sentence 1 of Paragraph 3: "The transfer ...technologies-"
2. Sentence 2 of Paragraph 3: "The goal ...chemicals."
3. Sentence 3 of Paragraph 5: "Once researchers ...transplants."
4. Sentence 3 of Paragraph 9: "In addition, ...conditions."

**D.** Write a one-sentence summary of Paragraph 10. (Score: 02)

**E.** The following statements are false because they misinterpret the meaning conveyed in the above selection. Rewrite each statement so that it agrees with what the writer says or implies. (Score: 01)

1. Patients with animal organs have total freedom of their lifestyles.
2. Animals with psychological similarity to humans can be used in xenotransplantation.

**Part Two: Writing** (Score: 09/20)

*Some scientists believe that scientific developments make the world a better place to live; some others think that such developments have practically brought about so many harmful and damaging effects. Where do you stand? Explain your position in an argumentative essay of 250-300 words. Refer to any of the following fields: environment, industry, medicine, etc. to support your point(s) of view. Make sure that, in your introduction, you put your reader in the general atmosphere of your topic and clearly provide a thesis statement, and that each of your body paragraphs starts with a topic sentence which you back up with relevant supporting details. Draft, revise, and proofread your essay. Your writing will be assessed for **ideas, language, style, and tidiness.***

**(Score: 05** for ideas and organization, **03** for language and style, and **01** for tidiness and legible handwriting)

# SECONDARY CYCLE CERTIFICATE

Exam Session of June 2006

General & Life Sciences Sections

English as a 1<sup>st</sup> Foreign Language

## ANSWER KEY

- Competencies:
- Utilize reading strategies.
  - Develop literal and interpretive comprehension of printed discourse.
  - Produce transactional writing.

- A.**
1. The use of historical events establishes background information about the issue at hand and prepares the reader for the event that gives hope that transplants might not depend only on human organs. The events also serve to introduce the main idea, grab the reader's attention and achieve credibility. **(Score: 1.5)**
  2. To show the need for animal organ transplant, the writer makes use of statistics that show that there is a radical shortage of human organs. **(Score: 1.5)**
  3. Paragraphs 8 and 9 are thematically related. In Paragraph 8, the writer cites the health implications and restrictions on lifestyles of xenotransplantation which are fully elaborated on in Paragraph 9. As a result, Paragraph 9 supports/ illustrates the main idea produced/ expressed in Paragraph 8. **(Score: 1.5)**
  4. The writer's tone in Paragraph 5, besides being serious, can be described as alarming, warning and uncertain, with a slight touch of optimism towards the very end.
    - Alarming and warning are expressed by the possibility of transmitting viruses into the human body.
    - Uncertainty is revealed in the phrase "do not yet know."
    - The writer expresses a thread of hope in the last sentence where he/ she talks about the possibility of getting rid of viruses. **(Score: 1)**

**B.**

<b>Disadvantages</b>	1. Expensive technique (Paragraph 5)
	2. Possible transmission of viruses (Paragraph 5) Health risk/ implications (Paragraphs 5, 8, 9)
	3. Severe restrictions on patients' lifestyles (Paragraph 8)
	4. Abuse of animals (Paragraph 9)

**N.B.** *The students are supposed to cite three disadvantages.* **(Score: 1.5)**

- C.**
1. Sentence 1 of Paragraph 3: "The transfer ...technologies-" Definition
  2. Sentence 2 of Paragraph 3: "The goal ...chemicals." Comparison/ Similarity
  3. Sentence 3 of Paragraph 5: "Once researchers ...transplants." Cause/ Effect
  4. Sentence 3 of Paragraph 9: "In addition, ...conditions." Cause/ Effect **(Score: 1)**

**D.** Suggested summaries: **(Score: 2)**

1. The writer in Paragraph 10 quotes Dr. Patrick Dixon, who believes that the competition among scientists will inevitably lead to human cloning one day.
2. The writer in Paragraph 10 quotes Dr. Patrick Dixon, who sees that scientific research is rushing toward inevitable human cloning.

- E.**
1. Patients who have animal organs have restrictions on their lifestyles.
  2. Animals with physiological similarity and not psychological are used. **(Score: 1)**