دورة سنة 2004 العادية	امتحانات شهادة الثانوية العامة فرعا العلوم العامة وعلوم الحياة	وزارة التربية والتعليم العالي المديرية العامة للتربية دائرة الامتحانات
الاسم : الرقم :	مسابقة في اللغة الانكليزية المدة : ساعتان ونصف	

Part One : Reading

(Score: 11/20)

Read the following magazine article by Olivia Judson, in which she sheds light on the advantages and disadvantages of Mars exploration missions. When you are through with the reading, answer the questions that follow.

Should We Hold Off Inviting Martians to Earth?

1 In *The War of the Worlds* (1898), H.G. Wells imagines Earth invaded by spaceships bearing monstrous, conquering Martians. All human defenses prove ineffective, but the Martians sicken and die when attacked by Earth's humblest living creatures, microbes.

2 This interesting science-fiction insight is suddenly relevant in the real world. We are invading Mars – two robots are currently trundling around the planet's surface to look for signs of life – and planning to bring materials back. Are the tables turned? Could our planet be done in by forms of Martian life? We can hope that any organisms dwelling on Mars will have originated and evolved so differently that they cannot survive, reproduce and threaten living beings here. But we cannot be sure.

3 Certainly, the idea that Mars once harbored life no longer seems absurd: Mars used to have briny ponds, perhaps even salty marshes. And though the place now seems dead and barren there are several reasons to suppose that life – if it was ever there – could persist to this day.

4 The place still has water. On the surface, the stuff mostly exists as ice; if puddles form at all (we have yet to find any), they may do so only fleetingly. Beneath the surface, however, it looks as though there might be aquifers, or even lakes, raising the possibility that Martians might be thriving underground.

5 Perhaps the strongest reason to think the planet could be home to something is that over the past 20 years, we've learned that many inhabitants of Earth live in environments as peculiar as those on Mars. Here, some organisms exist inside rocks – in the chilly wastes of Antarctica or a mile deep in the ground. Others live in ice sheets, or thrive in the strongest acids. If organisms here can pull off such stunts, it seems a good bet that Martians could, too.

6 Finding life on Mars obviously would be thrilling. It would, in a small way, ease our loneliness. In addition, it might illuminate that great mystery, the origin of life on Earth. But the possibility of life on Mars also suggests that we should approach the place with caution. If something is living there, then bringing Martian rocks back to Earth – which NASA hopes to do within the next 10 years or so – could be a mistake if not undertaken very carefully.

7 The history of first-time meetings between organisms is a sobering one. When the Spanish came to the New World, they brought smallpox and measles, which killed 90 percent of the people in Mexico within 50 years. HIV crossed into humans from chimpanzees. Nor is it just viruses that are troublesome. When animals and plants arrive in a new place, they can have devastating effects.

8 Given this, it seems rash even to entertain the notion of bringing Martian rock samples to Earth. So what's the argument in favor? The main one is that we could do a much more exhaustive analysis of the rocks here than robots sent to Mars could do on our behalf. We would therefore be much more likely to find life or evidence of it. Moreover, some say the exercise can't be that risky because we've already been exposed to Martian soil; roughly 90 pounds of rocks from the planet hit Earth every year.

9 This shouldn't necessarily be taken as a sign that Martians aren't dangerous, though. Arriving in a nice, comfortable spaceship should offer a better chance of survival than a fiery ride through the Earth's atmosphere. Of course, maybe nothing would happen if we did bring rock samples back. The planet may, in fact, be home to no one. Even if it holds life, the organisms might not find Earth to their liking. Besides, no one is suggesting opening a box and releasing Martians in the middle of the rain forest.

10 But what if something went wrong? There could be an accident on arrival or problems with the containment facility. Another, less careful space agency from another country might manage to bring rocks

back to Earth before NASA did. The scale of the disaster could be spectacular. Even if Martians didn't cause human diseases, they might irrevocably destroy earthly ecosystems.

11 And, in the end, doesn't the experiment seem a little premature? It's impossible to overstate our ignorance of life, even life on Earth. We continue to find microbes living in places that we didn't think could support life, and many of these organisms get their energy in ways we never imagined were possible. In February, for example, the journal Nature reported the discovery of bacteria that seem to live off electrons directly obtained from metallic iron. Our chances of recognizing Martians, whatever they are, will surely be greater when we know more about life here. So for the time being, let's cancel our invitation to the Martians and concentrate on exploring our own planet and understanding the amazing diversity of life forms on Earth.

Questions

- A. Respond to the following questions, answering each in 2-4 complete sentences of your own. Write the answers in your answer booklet.
 - 1. In the above reading text, Ms. Judson presents a number of signs that support the possibility of life on Mars. Provide at least two of these signs. (Score: 01)
 - 2. How is the writer's sense of uncertainty revealed in Paragraph 2? Provide evidence from the paragraph to support your answer. (Score: 01)
 - 3. In terms of content, explain how Paragraphs 6 and 7 are related. (Score: 01)
 - 4. Identify the writer's tone(s) in Paragraphs 6 and 7. Justify your answer. (Score: 01¹/₂)
 - 5. In what way(s) do you think Ms. Judson is realistic and practical in her concluding paragraph? (Score: 01¹/₂)
- B. Skim Paragraphs 6, 7, and 10 to trace two likely positive and two likely negative effects of Mars exploration missions. Copy the following T-chart in your answer booklet, and then fill it with relevant information, using phrases only. (Score: 02)

Positive	Negative
1.	1.
2.	2.

- C. 1. In your answer booklet, write the contextual meanings of the following expressions from Judson's article: (Score: 0¹/₂)
 - a. *done in* (Paragraph 2)
 - b. *pull off* (Paragraph 5)
 - 2. Pick from Paragraphs 8 and 11 the antonyms of the following words. Write the answers in your answer booklet. (Score: 0¹/₂)
 - a. *homogeneity*; *similarity*
 - b. *shallow*; *superficial*
- D. Select from Paragraphs 9 and 11 one example to illustrate each of the following items. Write the answers in your answer booklet. (Score: 02)
 - 1. Cause-effect
 - 2. Comparison
 - 3. Exemplification
 - 4. *Opinion*

Part Two : Writing

Science is basically neutral. However, it can lead to positive or negative results, depending on how we use it. Discuss this statement shedding light on one domain or more where science can lead to constructive and destructive results. Develop your ideas in a 250-300-word essay of unified, coherent, and properly sequenced paragraphs. See 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 **both ideas and form.** [Score: 05 for ideas, 03 for language and style, and 01 for tidiness and legible handwriting]

(Score: 09/20)

SECONDARY CYCLE CERTIFICATE

Exam Session of June 2004

General and Life Sciences Sections

English as a 1st Foreign Language

ANSWER KEY

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

- A. 1. (Any two of the following suggested answers are correct.) (Score: 01)
 - Mars has ponds or salty marshes.
 - Mars has water in the form of ice, both above and below. There are also aquifers that show possibility of life.
 - An association and explanation of a hypothesis related to Earth; inhabitants of Earth live in strange environments which are almost the same as those of Mars. If they can survive in cold settings on Earth, then it is possible for organisms on Mars to survive too.
 - 2. The writer's uncertainty is revealed in the two questions that she poses which imply a deep feeling of worry and fear. It is also revealed in the writer's "hope" that the "organisms" existing on Mars won't have negative effects on living beings of Earth. This uncertainty is reinforced in the last sentence, "But we can't be sure." (Score: 01)
 - 3. Paragraph 6 illustrates/explains/exemplifies the notion how bringing Martian rocks could be a mistake. The situation can be compared to the Spanish invasion of the New World and the diseases the Spanish brought with them as mentioned in Paragraph 7. (Score: 01)
 - 4. In Paragraph 6, the writer is optimistic, hopeful, and positive; she believes that any information about Mars would be "thrilling". But at the same time she is cautious, critical, and skeptical because she believes that we should "approach" Mars with "caution". The tone in Paragraph 7 is that of warning and caution because the writer points out the disasters and dangers when an outside element gets into a new habitat. (Score: 01½)
 - 5. First, the writer is very realistic and practical when she confesses our ignorance towards life on Earth. Second, she advises us to explore our world rather than Mars. (Score: $01\frac{1}{2}$)
- B. Note: Any two of the negative items are accepted. (Score: 0¹/₂ each)

Positive	Negative
1. Having to ease our loneliness	1. The possibility of introducing deadly diseases
2 . Having to illuminate the origin of life on Earth	through rocks2. Destroying our ecosystem3. Problems with containment facility

C. 1. (Score: $0\frac{1}{4}$ each)

- a. *done in* (Paragraph 2) : ruined
- b. *pull off* (Paragraph 5) : bear, stand
- 2. (Score: 0¹/₄ each)
 - a. *homogeneity ; similarity :* diversity
 - b. *shallow* ; *superficial* : exhaustive
- D. (Score: $0\frac{1}{2}$ each)
 - 1. Cause/Effect
 - Of course, maybe nothing would happen if we did bring rock samples back. (Paragraph 9)
 - Even if it holds life, the organisms ... their liking. (Paragraph 9)
 - Our chances of recognizing Martians... about life here. (Paragraph 11)
 - 2. *Comparison* : Arriving in a nice, comfortable spaceship ... atmosphere. (Paragraph 9)
 - 3. *Exemplification* : In February, for example ... metallic iron. (Paragraph 11)
 - 4. Opinion : Our chances of recognizing... about life here. (Paragraph 11)