

Part One: Reading Comprehension

(Score: 12/20)

In the selection below, the writer reports on how large plastic patches are damaging the oceans. Read it carefully, and then answer the questions that follow.

An Endless Nightmare to Our Ecology

- 1 The world is flooded with plastic. It is in our cars and our carpets; we wrap it around the food we eat and almost every other product we consume. It has become a key component of globalization, but it is damaging our ecological environment in ways that most of us are barely aware of. The bitter fact is that we have been paying a deadly price for our throwaway society in which we have become careless and selfish consumers.
- 2 I have just returned with a team of scientists from six weeks at sea conducting research in the Great Pacific Garbage Patch — one of five major large areas of garbage spreading in the oceans north and south of the Equator. Although it was my 10th voyage to the area, I was extremely shocked to see the huge increase in the quantity of plastic waste since my last trip in 2009. Plastics of every description, from tires to unrecognized and numerous fragments, floated past our marine research vessel *Alquita* for hundreds of miles without an end.
- 3 No scientist, environmentalist, ecologist, national or international government agency has yet been able to establish a comprehensive way of recycling the plastic trash that covers our land and inevitably blows and washes down to the sea. In a 2010 study, my colleagues and I estimated that some 2.3 billion pieces of plastic — from polystyrene foam to small fragments — had flowed from Southern California's urban centers into its coastal waters in just three days of sampling.
- 4 As a matter of fact, plastics biodegrade very slowly, breaking into small fragments in a long process. In addition, plastic rubbish entangles and slowly kills millions of sea creatures. Hundreds of species think that plastics are their natural food, so they eat toxicants that cause liver and stomach abnormalities in fish and birds, the fact that often results in their death. For example, the lantern fish eats large quantities of plastic fragments, which threatens their future as a nutritious food source to the tuna, salmon, and other types of fish.
- 5 We suspect that more animals are killed by floating plastic waste than by even climate change — a hypothesis that needs to be seriously tested. During our most recent voyage, we studied the effects of pollution that cause protein and hormone abnormalities by taking blood and liver samples from fish. While we hope our studies will yield important contributions to scientific knowledge, **they** address but a small part of a broader problem.
- 6 The problem is worsened by the aquaculture industry, which uses huge amounts of plastic in its floats, nets, lines, and tubes. The most common floats and tubes I have found in the deep ocean and on Hawaiian beaches come from huge oyster farms like the one that created the oyster-buoy island we discovered. Governments, which are highly concerned with reduction of marine food sources, should ensure that plastic from cages and other equipment used for aquaculture does not escape into the waters.
- 7 Plastics are a nightmare to recycle, and they are very hard to clean. They can melt at low temperatures, so impurities are not vaporized. It makes no difference whether a synthetic polymer like polyethylene is derived from petroleum or plants; **it** is still a persistent pollutant. Biodegradable plastics exist, but manufacturers are quick to point out that “marine degradable” does not mean “marine disposable”.
- 8 In the United States, especially in California, the focus has been on so-called structural controls, such as covering gutters and catch basins with screens. This has reduced the amount of rubbish flowing down rivers to the sea. Activists around the world are working seriously to convince lawmakers to ban the use of the most polluting plastics — bottles, bags, and containers that deliver food and drink — a

step which has been so far successful. In California, for instance, nearly 100 municipalities have passed regulations banning throwaway plastic bags and the Senate is considering a statewide ban.

9 Until we shut off the flow of plastic to the sea and cut down its countless uses in industry and aquaculture, the newest global threat to our ecology and environment will be far greater than that posed by global warming.

Questions

A. Answer each of the following questions in 1- 4 complete sentences using your own words.

1. Based on Paragraph 2, what is shocking about the latest research conducted by the team of scientists? (01)
2. In reference to Paragraph 3, state one reason behind the writer's concern about the environment. (01)
3. Refer to Paragraphs 4 and 6 to explain how huge oyster farms have contributed to the death of sea creatures. (01)
4. Based on Paragraph 8, what can be deduced from the steps taken by California and the activists to reduce plastic pollution? (01)

B. Answer the following questions in complete sentences.

1. What two purposes does the introduction serve? Justify your answer. (01)
2. What adjective best describes the writer's tone in Paragraph 9? Justify your answer. (01)
3. Identify two types of evidence the writer uses to achieve credibility. Provide examples. (1.5)
4. Identify two types of audience, other than the general reader, who might be interested in reading the selection above, and then state what interest each type finds in it. (1.5)

C. Refer to Paragraphs 4, 5 and 7 to find words that almost have the following meanings. (02)

1. *to trap or cause to become caught in*
2. *state or quality of having deformity or irregularity*
3. *to produce or provide*
4. *capable of being decomposed*

D. What does each of the following pronouns, bold-typed in the selection above, refer to? (01)

1. **they** (Paragraph 5)
2. **it** (Paragraph 7)

Part Two: Writing (Choose ONE of the two prompts below.)

(Score: 08/20)

Prompt A: *“Environmental pollution is not a new phenomenon, yet it remains the world’s greatest problem facing humanity and the leading environmental cause of illness and death.”*

In a well-organized cause-effect essay of 250-300 words, explain the causes and effects of environmental pollution.

Prompt B: *“Because mankind owes the natural world a moral obligation, it is important to protect the environment by stopping the man-made disruptions to ecosystems which endanger all creatures.”*

Write a well-organized persuasive essay of 250-300 words in which you convince people to stop harming the environment and threatening the long-term health and prosperity of humans. Use appropriate pieces of evidence such as facts, real-life examples, etc.

An Endless Nightmare to Our Ecology

Q	Answer Key	Score
I-A-1	<p>The team was shocked by the huge increase in the number of plastic wastes.</p> <p>Or: The team was shocked by seeing different types of wastes spreading everywhere and covering the sea water. (deduct 0.25 for language errors)</p>	01
I-A-2	<p>There is no serious or complete way available to recycle the plastic wastes that cover the land and the sea.</p> <p>Or: In just few days the writer and his colleagues could estimate 2.3 billion (huge numbers) of plastic pieces, a fact that shows how dangerous the situation is. (deduct 0.25 for language errors)</p>	01
I-A-3	<p>Huge oyster farms have been using vast amounts of plastic in their equipment (or floats and tubes). Mistakenly, small sea animals identify the plastics which escape from (or which are thrown by) such farms into the waters as their natural food, so they swallow these toxic materials and suffocate to death.</p> <p>(deduct 0.25 for language errors)</p>	01
I-A-4	<p>Taking serious steps in California on structural controls has resulted in reducing the quantity of rubbish thrown in rivers and the sea, and working seriously on legislative methods by the activists around the world has resulted in banning the throwaway plastic bags in some countries. As such, it can be deduced that reducing plastic pollution is possible when the attempts and efforts taken are serious.</p> <p>(0.5 for the reason(s) and 0.5 for the deduced statement; any other logical deduced statement is accepted; deduct 0.25 for language errors)</p>	01
I-B-1	<p>First, the introduction presents the selection's main idea about the damages that plastics cause to the ecological environment. Second, it provides background information about this environmental issue: its uses (in cars and carpets and for wrapping food and other products), its effects (damaging the ecological environment), and those who are responsible for it (careless and selfish consumers). Third, it attracts the readers' attention through the facts provided about plastics and its damaging effects.</p> <p>(any two functions with justification are acceptable; 0.5 for each purpose with its justification)</p>	01

I-B-2	<p>The writer’s tone is critical/worried/concerned and alarming/warning. He is indirectly criticizing human harmful activities: throwing plastic into the sea and using it in big numbers in industry. He also warns the readers against such actions which should be stopped otherwise the world is going to face a far worse outcome than that caused by global warming.</p> <p>(0.5 for the adjective/tone and 0.5 for its justification; any other accurate adjective/tone with its appropriate justification is acceptable)</p>	01
I-B-3	<p>First, the writer uses specific names (countries, states, patches, vessels, centers, etc.): “Great Pacific Garbage Patch” and “vessel <i>Alguita</i>” (Paragraph 2); “Southern California’s urban centers” (Paragraph 3), and “United States” and “California” (Paragraph 8). Second, the writer uses results/findings of studies: the result of 2010 study about the numbers estimated about pieces of plastic flowing from Southern California’s urban centers into its coastal waters (Paragraph 3). Third, the writer uses numbers: “10th voyage” (Paragraph 2), “2.3 billion pieces” (Paragraph 3), and “100 municipalities” (Paragraph 8).</p> <p>(0.75 for each type with its example(s); 0.25 for the type of evidence and 0.5 for the example; two types are required; any other accurate type with appropriate examples is accepted)</p>	1.5
I-B-4	<p>First, <u>people working in the plastic industry, owners of plastic factories or countries that produce huge amounts of plastic</u> because the selection highlights the serious damage plastic has caused to the seas and marine life. Second, <u>environmentalists/ecologists/government officials/ members of NGOs/members of civil society</u> because the selection presents facts about a very serious environmental issue that endangers human’s life and future.</p> <p>(0.75 for each type of audience with its interest; 0.25 for the type and 0.5 for the interest; two types are required; any other accurate type with appropriate justification is accepted)</p>	1.5
I-C-1	entangle (or entangles)	0.5
I-C-2	abnormalities (or abnormality)	0.5
I-C-3	yield	0.5
I-C-4	degradable/ biodegradable	0.5
I-D-1	“they” refers to studies	0.5
I-D-2	“it” refers to synthetic polymer/ polymer/ polyethylene	0.5
II-A	Content and organization of ideas	3.5
II-B	Language and style	3.5
II-C	Tidiness and legible handwriting	01