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**Part C. Reading Comprehension**

Directions: Read the following two passages and select the best choice (1), (2), (3), or (4) that best answers each question. Then mark your answer on your answer sheet.

Passage 1:

You can drop cigarettes. Avoid pollution. But there's one toxin you just can't dodge: oxygen. With every gulp of air, oxygen gives you life. Some of it, however, gets converted inside your cells into a radical molecule that can wreak havoc, degrading those same cells and others. A growing number of scientists say this damage is what causes aging. They also think they may one day be able to fend off oxygen's ill effects and help us live a lot longer.

Scientists have long known that oxygen is capricious. As molecules go, it gets around, reacting with all kinds of things. Mostly, that's good. Oxygen combines with fats and carbohydrates, in a part of cells known as the mitochondrion, to churn out the energy that gets you through the day. But the conversion isn't perfect. A small amount of oxygen is regenerated in a nasty form called a free radical, or oxidant—the very critter that causes metal to rust. The oxidants careen about, binding to and disrupting

the membranes, proteins, DNA and other cell structures that make your body work. Over time, this damage adds up, and the result just might be an older, frailer you.

According to one estimate, oxidants bombard the DNA inside every one of our cells roughly 10,000 times a day. Thankfully, most of the assailants are intercepted by a small army of antioxidant chemicals. Proteins also patch up the damage caused by the radicals that do get through. "The house is always getting dirty, and we're always trying to clean it up," remarks John Carney, chief technical officer at Centaur Pharmaceuticals in Sunnyvale, Calif, which is developing drugs to fight various diseases of aging. But eventually, the theory goes, our tired cells get less efficient at repelling free radicals and mopping up oxidative messes, and the damage accumulates. We begin to rust from the inside out.

- 96- What is the subject of the passage?
- | | |
|-----------------------------------|-------------------------|
| 1) The role of one aging variable | 2) Ways to stop aging |
| 3) A misconception about aging | 4) The process of aging |
- 97- All of the following are FALSE about the scientists mentioned in paragraph 1 EXCEPT that they
- 1) think there would come a day that a radical molecule would be discovered to offset oxygen's ill effects
 - 2) believe what is accelerating aging is the havoc wreaked on human cells by the impact of oxygen deficiency caused by smoking and pollution
 - 3) are optimistic about the chances of humans' being able to live a longer life in the future
 - 4) are losing hope about preventing oxygen from doing damage to human cells as it does now

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- 98- The author states that oxygen is capricious in that it
- 1) generates free radicals inside cells that inflict damage
 - 2) gets around, reacting with all kinds of things
 - 3) results in the production of more energy than we need for our daily needs
 - 4) combines with fats and carbohydrates to produce energy
- 99- The word “assailants” in paragraph 3 refers to
- 1) estimates
 - 2) cells
 - 3) 10,000 times a day
 - 4) oxidants
- 100- The author has brought in a quotation from John Carney to bolster the fact that we
- 1) are to do everything possible to ascertain that our environment is clean enough to prolong our life
 - 2) have some natural defense mechanisms that work to lessen the havoc that oxidants wreak on our cells
 - 3) spend more energy than we should to counter the effects of free radicals
 - 4) have bodies that are similar to houses and thus are to be clinically examined and replaced

Passage 2:

So why should we care about how many different kinds of organisms there are, as long as the ones we care about are still around? For one thing, no organism lives in isolation from its environment and the other living things in it. Creatures like whales, pandas, sea turtles, and tigers that capture our imagination cannot survive without countless other species. Organisms are bound together in complex food webs, nutrient cycles, symbioses, and other ecological interactions. The loss of even the “lowliest” of species could have profound effects on many others. Biologists simply do not understand ecosystems well enough to predict what these effects might be.

Another reason to conserve biodiversity is that it represents a hidden treasure trove. Most pharmaceuticals are derived from natural chemicals in organisms, but only a tiny fraction of species have been tested. The wild plants from which our farm plants were derived contain genes for pest resistance, faster growth, and higher quality that could be used to improve our food crops or develop new ones. New materials—a substitute for petroleum, perhaps, or industrial chemicals or better fibers for clothing—also remain undiscovered. There are so many different kinds of organisms, however, that scientists have not had time to even identify most of them, much less evaluate their usefulness. The next species that goes extinct might hold the cure for cancer, a solution to hunger, or maybe just the makings of an elegant new perfume—a secret that will be lost forever.

- 101- The question with which the passage opens is
- 1) actually what the passage mainly deals with
 - 2) intended to display our insufficiency of knowledge
 - 3) one that is disputed
 - 4) a rhetorical question

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- 102- The profound effects cited in paragraph 1 are the effects**
- 1) come up only when the lowliest of species are neglected
 - 2) that are around now but not fully understood by scientists
 - 3) the environment has on living creatures
 - 4) scientists are not yet able to pinpoint in advance
- 103- What is the function of paragraph 2 in relation to what paragraph 1 is mainly concerned with?**
- 1) It yet introduces another reason in support of the main theme of paragraph 1.
 - 2) It uses paragraph 1 as a basis to make a prediction about what human nutrition would be like without biodiversity.
 - 3) It qualifies the chief claim presented in paragraph 1.
 - 4) It casts doubt on the validity of the main point of paragraph 1.
- 104- The passage provides information that answers which of the following questions?**
- 1) Why has a tiny fraction of species been tested for their pharmaceutical value?
 - 2) Why did humans first use the wild plants to derive the ones we now grow?
 - 3) Why is it that the author contends that biodiversity is actually a hidden treasure trove?
 - 4) Why have biologists not yet been able to understand ecosystems well enough?
- 105- The tone of the passage could best be described as**
- 1) informative and cautionary
 - 2) enthusiastic and partial
 - 3) scholarly and noncommittal
 - 4) skeptical and questioning

This is the end of Section 5.