



Quarter II Examination

Student's name:

Sex: Male Female

Class:/Grade: 8

Teacher's name:

Date:/...../.....

Time allowance: 60 mn

40

Reading

Passage 1

Where Have All the Fish Gone?

Throughout history, people have thought of the ocean as a diverse and limitless source of food. Yet today there are clear signs that the oceans have a limit. Most of the big fish in our oceans are now gone. One major factor is overfishing. People are taking so many fish from the sea that species cannot replace themselves. How did this problem start? And what is the future for fish?

A. Source of the Problem

For centuries, local fishermen caught only enough fish for themselves and their communities. However, in the mid-20th century, people around the world became interested in making protein-rich foods, such as fish, cheaper and more available. In response to this, governments gave money and other help to the fishing industry.

As a result, the fishing industry grew. Large commercial fishing companies began catching enormous quantities of fish for profit and selling them to worldwide markets. They started using new fishing technologies that made fishing easier. These technologies included sonar to locate fish, and dragging large nets along the ocean floor. Modern technology allows commercial fishermen to catch many more fish than local fishermen can.

B.

In 2003, a scientific report estimated that only 10 percent remained of the large ocean fish populations that existed before commercial fishing began. Specifically, commercial fishing has greatly reduced the number of large predatory fish, such as cod and tuna. Today, there are plenty of fish in the sea, but they're mostly just the little ones. Small fish, such as sardines and anchovies, have more than doubled in number—largely because there are not enough big fish to eat them.

This trend is a problem because ecosystems need predators to be stable. Predators are necessary to weed out the sick and weak individuals. Without this weeding out, or survival of the fittest, ecosystems become less stable. As a result, fish are less able to survive difficulties such as pollution, environmental change, or changes in the food supply.

C. A Future for Fish?

A study published in 2006 in the journal *Science* made a prediction: If we continue to overfish the oceans, most of the fish that we catch now—from tuna to sardines—will largely disappear by 2050. However, the researchers say we can prevent this situation if we restore the ocean's biodiversity.

Scientists say there are a few ways we can do this. First, commercial fishing companies need to catch fewer fish. This will increase the number of large predatory fish. Another way to improve the biodiversity of the oceans is to develop aquaculture—fish farming. Growing fish on farms means we can rely less on wild-caught fish. This gives species the opportunity to restore themselves. In addition, we can make good choices about what we eat. For example, we can stop eating the fish that are the most in danger. If we are careful today, we can still look forward to a future with fish.

I. Identify the choice that best completes the statement or answers the question.

1. What is the main idea of the passage?

- A. The ocean provides a diverse, endless supply of food.
- B. Technology has allowed the fishing industry to grow.
- C. Overfishing has caused the number of large fish to decline sharply.
- D. Pollution and other environmental factors have caused ecosystems to be unstable.

2. One of the main purposes of the 1st paragraph is to _____.
A. provide examples that support the main point of the passage
B. preview some of the main points in the rest of the passage
C. explain why there are so few fish left in the ocean
D. show the economic importance of the fishing industry

3. What is the best title for Section B of this passage?
A. Effects of Pollution
B. Sardine Ecosystems
C. The World's Smallest Fish
D. Why Big Fish Are Important

4. What point does the author make about large predatory fish?
A. They are less able to survive difficulties such as pollution than small fish.
B. Their numbers have declined by 10 percent.
C. They remove sick and weak individuals from fish populations.
D. They have declined in number because they have little left to eat.

5. The author uses the phrase “from tuna to sardines” (underlined) in Section C to indicate that _____.
A. both large and small fish will disappear by 2050
B. all types of fish can be grown on farms
C. populations of large fish will probably recover by 2050
D. the number of small fish will continue to decline

Passage 2

Aquatic Invasive Species

Many species—whether plants or animals—have used the oceans to move around the planet. By swimming or riding on floating objects like logs or leaves, these organisms have found new places to live. Their movement depended largely on ocean currents and winds. However, this changed when humans began to travel long distances by ship. Today, organisms can travel faster and farther.

A. What Are Invasive Aquatic Species?

An invasive, or non-native, aquatic species is any organism that exists in or near water where it doesn't belong. When a foreign species arrives in a new location, several things can happen: It can find its new habitat unwelcoming and die off; it can survive with little environmental impact; or it can take over, harming the native species in a number of ways.

Invasive species that thrive usually do so because their new home lacks natural predators to control their population. They do damage mainly by eating native species, by competing with them for food or space, or by introducing disease.

One infamous example is the zebra mussel, accidentally introduced by a cargo ship into the North American Great Lakes from the Black Sea in 1988. The little shellfish multiplied quickly. Many of the Great Lakes' native mussel populations died off because they couldn't compete with the zebra mussel for food sources. The zebra mussels also affected human structures by attaching themselves to anything from factory intake pipes to ship rudders. They've now spread from Canada to Mexico and are considered a major problem. Hundreds of millions of dollars are spent every year to try to control them.

B. How Do They Get There?

To provide balance, large ships contain a tank filled with seawater. This water is called ballast. Ships take in ballast before they leave, up to 20 million gallons (75 million liters) for large ships. When the ship arrives at its destination, it releases the ballast—along with whatever species happen to be inside. And these days, there are plenty of travel opportunities since about 45,000 cargo ships move around the world each year.

Another way invasive species travel is through the home aquarium trade. Exotic species of animals and plants are imported because they look good in a fish tank, and later they are released and become invasive species.

C. Fighting the Invaders

To combat invasive species, governments are mostly focusing on how they handle ship ballast. New regulations in some countries require ships to exchange their ballast with seawater before they enter a port of freshwater, or to treat their ballast with chemicals to kill invasive species before they are released.

II. Identify the choice that best completes the statement or answers the question.

6. What is the main purpose of the passage?
 - A. To provide basic information about aquatic invasive species
 - B. To provide suggestions on how to control aquatic invasive species
 - C. To discuss the role of one type of aquatic invasive species
7. What does the author imply about aquatic invasive species in the time before humans began to travel in ships?
 - A. They could travel only by swimming from place to place.
 - B. They were seldom successful in their new environments.
 - C. They moved more slowly and covered shorter distances.
8. Which of these words could replace the word “thrive” (underlined) in the 1st sentence of the 3rd paragraph without changing the meaning of the sentence?
 - A. fail
 - B. succeed
 - C. travel
9. Where did the zebra mussel originally come from?
 - A. Mexico
 - B. the Great Lakes
 - C. the Black Sea
10. Which of these statements is NOT true about the zebra mussel?
 - A. It attacks the native mussels.
 - B. It eats the same foods as native mussels.
 - C. It interferes with human activities.
11. According to the passage, how are governments dealing with the problem of invasive species?
 - A. They are trying to reduce the number of cargo ships globally.
 - B. They are trying to get rid of invasive species in ballast before ships reach the ports.
 - C. They are trying to prevent aquarium owners from purchasing exotic species.

Passage 3

An Interview with Barton Seaver

Barton Seaver is a chef and conservationist who wants our help to save the oceans. He believes that the choices we make for dinner have a direct impact on the ocean’s health. According to Seaver, individuals can make a big difference by making informed choices.

Q. Should people stop eating seafood?

People should definitely not stop eating seafood altogether. There are certain species that have been severely overfished and that people should avoid for environmental reasons. But I believe that we can save the oceans while continuing to enjoy seafood. For example, some types of seafood, such as Alaskan salmon, come from well-managed fisheries. And others, such as farmed mussels and oysters, actually help to restore declining wild populations and clean up polluted waters.

Q. What kind of seafood should people eat? What should they not eat?

My general advice is to eat fish and shellfish that are low on the food chain and that can be harvested with minimal impact on the environment. Some examples include farmed mussels, clams and oysters, anchovies, sardines, and herring. People should not eat the bigger fish of the sea, like tuna, orange roughy, shark, sturgeon, and swordfish.

Q. Why did you choose to dedicate your life to the ocean?

I believe that the next great advance in human knowledge will come not from new discoveries, but rather from learning how we relate to our natural world. Humans are an essential part of nature, yet humans do not have a very strong relationship with the world around them. I have dedicated myself to helping people to understand our place on this planet through the foods that we eat.

Q. Why do you believe people should care about the health of the oceans?

The health of the oceans is directly linked to the health of people. The ocean provides most of the air we breathe. It has a big effect on the weather that we rely on for crops and food production. It also provides a necessary and vital diet for billions of people on the planet. So I don't usually say that I am trying to save the oceans. I prefer to say that I am trying to save the vital things that we rely on the ocean for.

III. Indicate whether the statement is true, false, or not given in the passage.

12. _____ Barton Seaver owns a seafood restaurant.
13. _____ Barton Seaver advises people to give up seafood completely.
14. _____ Seafood contains vitamins and other nutrients that are essential to human health.
15. _____ Clams, anchovies, and sardines are examples of sea creatures that are low on the food chain.
16. _____ Barton Seaver believes that learning our place in nature is very important.
17. _____ Barton Seaver usually tells people that he is saving the oceans.

Passage 4

Disappearing Adélie

Penguin populations in Antarctica have declined by as much as 50 percent over the past 30 years, scientists report. The problem appears to be a shortage of krill, their main source of food. Biologist Wayne Z. Trivelpiece of the National Marine Fisheries Service has been studying chinstrap and Adélie penguins since the mid-1970s. Because Trivelpiece regularly monitors individual penguins, he's discovered a key factor in the declining numbers of penguins: Far fewer young penguins are surviving their first winter on their own because they're having a hard time finding krill.

According to Trivelpiece, about 50 percent of chicks¹ survived in the 1970s and mid-1980s; only about 10 percent survive now. He says that "there's about 80 percent less [krill] out here than there was just 20 years ago. So the probability of young penguins finding it often enough to survive during those first months of independence is much reduced."

Krill are tiny, shrimplike animals that represent a large part of the Antarctic food web. Like herbivores on land, krill feed on tiny plants called phytoplankton and are in turn eaten by many sea creatures, including penguins.

The local krill collapse is due to a pair of factors, Trivelpiece said. One is that temperatures in Antarctica have been rising steadily over the last few decades, which affects ice that forms on the surface of the sea. "If the ice no longer forms, phytoplankton growing on the bottom of that sea ice aren't available to provide a winter food source for the young krill that spawned² the summer before," Trivelpiece said. "Without that food, the young krill don't survive."

The second factor is actually a conservation success story—growing populations of baleen (krill-eating) whales, such as humpbacks. The whale population was greatly reduced in the 19th and 20th centuries because of overhunting, which meant penguins had less competition for krill. Population data from that period largely comes from the rough counts taken by Antarctic workers, but even if the count is not very accurate, the difference between 100,000 penguins in the 1930s and 500,000 or 600,000 in the 1970s is enormous, Trivelpiece said. In fact, Adélie penguins were actually fish-eaters before whale numbers dropped. "Only in the last hundred years or so did krill come into their diet, when the whales were taken out of the system and there was a krill surplus,"³ Trivelpiece said.

IV. Indicate whether the statement is true, false, or not given in the passage.

18. What is the main purpose of the passage?
 - A. To contrast the lifestyles of baleen whales and Adélie penguins
 - B. To explain the declining number of Adélie penguins
 - C. To point out the effects of global warming on Adélie penguins

19. The word “monitors” (underlined) in the 4th sentence of the 1st paragraph is closest in meaning to _____.
A. describes
B. survives
C. observes

20. What does the author imply about older penguins?
A. They are able to find krill easier than young penguins.
B. They are taking food away from younger penguins.
C. They suffer more from climate changes than young penguins.

21. Today, what percentage of young Adélie penguins survive their first winter on their own?
A. 10 percent
B. 20 percent
C. 50 percent

22. The author compares groups of herbivores on land to _____.
A. phytoplankton
B. krill
C. penguins

23. The word “rough” (underlined) in the 3rd sentence of the last paragraph indicates that the data from the 1930s to the 1970s was _____.
A. detailed
B. latest
C. approximate

24. Which of these is NOT a factor in the decline of krill?
A. Antarctic temperatures are rising.
B. Whale populations are increasing.
C. Phytoplankton populations are increasing.

V. Select sentences from the answer choices and match them with the type of animal to which they relate. One answer choice will not be used.)

Answer choices	
a. At one time, they ate fish, not krill.	<u>Baleen Whales</u>
b. They were extensively hunted during the 19 th and much of the 20 th centuries.	25. (A) _____
c. They eat krill from the bottom of sea ice.	26. (B) _____
d. They were very successful from the 1930's until the 1980's.	<u>Adélie penguins</u>
e. Their numbers are increasing today.	27. (A) _____
	28. (B) _____

Passage 5

The Art of Memory

We all try to remember certain things in our daily lives: telephone numbers, email addresses, facts that we learn in class, important tasks. But did you know that people once had great respect for memory?

People began to value memory as a skill about 2,500 years ago. That's when the poet Simonides of Ceos discovered a powerful technique known as the loci method. Simonides realized that it's easier to remember places and locations than it is to remember lists of names, for example. According to the loci method, if you think of a very familiar place, and visualize certain things in that place, you can keep those things in your memory for a long time.

Simonides called this imagined place a “memory palace.” Your memory palace can be any place that you know well, such as your home or your school. To use the loci method to remember a list of tasks, for example, visualize yourself walking through your house. Imagine yourself doing each task in a different room. Later, when you want to remember your list of tasks, visualize yourself walking through your house again. You will remember your list of tasks as you see yourself performing each one.

Nearly 2,000 years later, a man in 15th-century Italy named Peter of Ravenna used the loci method to memorize books and poems. He memorized religious texts, all of the laws of the time, 200 speeches, and 1,000 poems. By using the loci method, he was able to reread books stored in the “memory palaces” of his mind. “When I [travel] I can truly say I carry everything I own with me,” he wrote.

When Simonides and Peter of Ravenna were alive, books and pens were not widely available for people to write notes with, so people had to remember what they learned. Mary Carruthers is the author of *The Book of Memory*, a study of the role of memory techniques in the past. She writes, “Ancient and medieval people reserved their awe for memory.” In other words, these people thought that a genius was a person with excellent memory. They considered memory to be an art and a great virtue because a person with a good memory could turn external knowledge into internal knowledge.

After Simonides’ discovery of the loci method, others continued to develop the art of memory. Memorization gained a complex set of rules and instructions. Students of memory learned what to remember and techniques for how to remember it. In fact, there are long traditions of memory training in many parts of the world. In some cultures, memorization of religious texts is considered a great achievement; many other societies value storytellers who can retell myths and folktales from the past.

But over the past millennium, many things have changed. We’ve gradually replaced our internal memory with external memory. We’ve invented technological crutches so we don’t have to store information in our brains. We have photographs to record our experiences, calendars to keep track of our schedules, books (and now the Internet) to store our collective knowledge, and note pads—or iPads—for our ideas. By using these crutches, we don’t have to remember anything anymore. When we want to know something, we look it up. We’ve gone from remembering everything to remembering very little. How does this affect us and our society? Did we lose an important skill?

f. Identify the choice that best answers the question.

29. Which of these best describes the loci method?

- A. an old technique used for writing poetry
- B. traveling to other places to form new memories
- C. using place and visualization to remember things
- D. writing lists of names in familiar places

30. Which of these is NOT an example of external memory?

- A. books
- B. thoughts
- C. photos
- D. calenders

31. Look at the underlined sentence in the 7th paragraph. Which portion of the sentence shows an *effect*?

- A. We’ve invented
- B. We’ve invented technological crutches in our brains
- C. we don’t have to store information in our brains.

32. What did Peter of Ravenna mean by the quote below in the last sentence of the 4th paragraph?

When I [travel] I can truly say I carry everything I own with me.

- A. All of my memories are stored in my internal knowledge.
- B. I have memorized 200 speeches and 1,000 poems.
- C. I live a simple life and I have few belongings.
- D. Traveling is a valuable source of external knowledge.

33. What can we infer about the quote below from Mary Carruthers, author of *The Book of Memory*?
Ancient and medieval people reserved their awe for memory.

- A. She thinks that memory techniques have not changed very much.
- B. She believes that ancient and medieval people had more virtues.
- C. She is impressed by how people regarded memory in the past.
- D. She discovered how to transfer external to internal memories.

34. Which of these is NOT true about memorization in the past?

- A. The rules of memorization were easier in the past.
- B. Most people did not have access to pens or books.
- C. People respected those with a very good memory.
- D. Storytelling was a valued skill in many societies.

35. What is the main idea of the last paragraph?

- A. These days, people have too much to remember.
- B. Our memory has declined because of technology.
- C. Scientists no longer believe in the loci method.
- D. Our memory has improved because of technology.

Passage 6

On Memory

What is a Memory?

We remember some things and we forget others. So, what exactly is a memory? The best that neuroscientists¹ can do for the moment is this: A memory is a stored pattern of connections between neurons in the brain. Neurons are cells that carry messages from the brain to other parts of the body. There are about a hundred billion neurons, each of which can make perhaps 5,000 to 10,000 connections with other neurons in the average adult brain. Every sensation we remember, every thought we think, affects the connections within this huge network, which is always changing, every moment, even as we sleep.

Storing Memories

The way we describe memory—a mental image, a hard drive, a recorder—all suggest mechanical accuracy, as if the mind carefully saves every one of our experiences. In fact, for a long time, it was a commonly held view that our brains held a lifetime of memories that are locked away somewhere. If they can't be found, it isn't because they've disappeared, but only because we've lost access to them.

How Much We Forget

Michael Anderson, a memory researcher at the University of Oregon in Eugene, has tried to estimate the cost of all that loss. According to a decade's worth of "forgetting diaries" kept by his undergraduate students (the amount of time it takes to find the car keys, for example), Anderson calculates that, for many people, the time lost to forgetting things wastes more than a month of every year.

Are Drugs the Solution?

Within the past decades, not surprisingly, pharmaceutical² companies have increased their efforts to create new drugs that improve the brain's natural capacity to remember. In recent years, at least three companies have been formed with the specific purpose of developing memory drugs. It may not be long before such drugs begin to reach the market. When they do, they could have an enormous impact on society.

This raises some worrying questions. Would we choose to live in a society where people have vastly better memories? In fact, what would it even mean to have a better memory? Would it mean to only remember things exactly as they happened, free from the revisions and exaggerations that our mind naturally creates? Would it mean forgetting bad experiences or remembering only the things we want to remember? What would you prefer?

g. Indicate whether the statement is true or false.

36. _____ The main idea of the passage is that experts believe we forget less than we used to.

37. _____ According to the first paragraph, there are 5,000 to 10,000 neurons in the human brain.

38. _____ In the 2nd paragraph, the term “mechanical accuracy” (underlined) means “precise or exact, like a machine.”

49. _____ We can infer from the section “Storing Memories” that our brains may not, in fact, save all of our experiences.

40. _____ Students wrote about how they improved their memory in the “forgetting diaries.”