

## APPENDIX

### READING MOTIVATION QUESTIONNAIRE

Name : .....

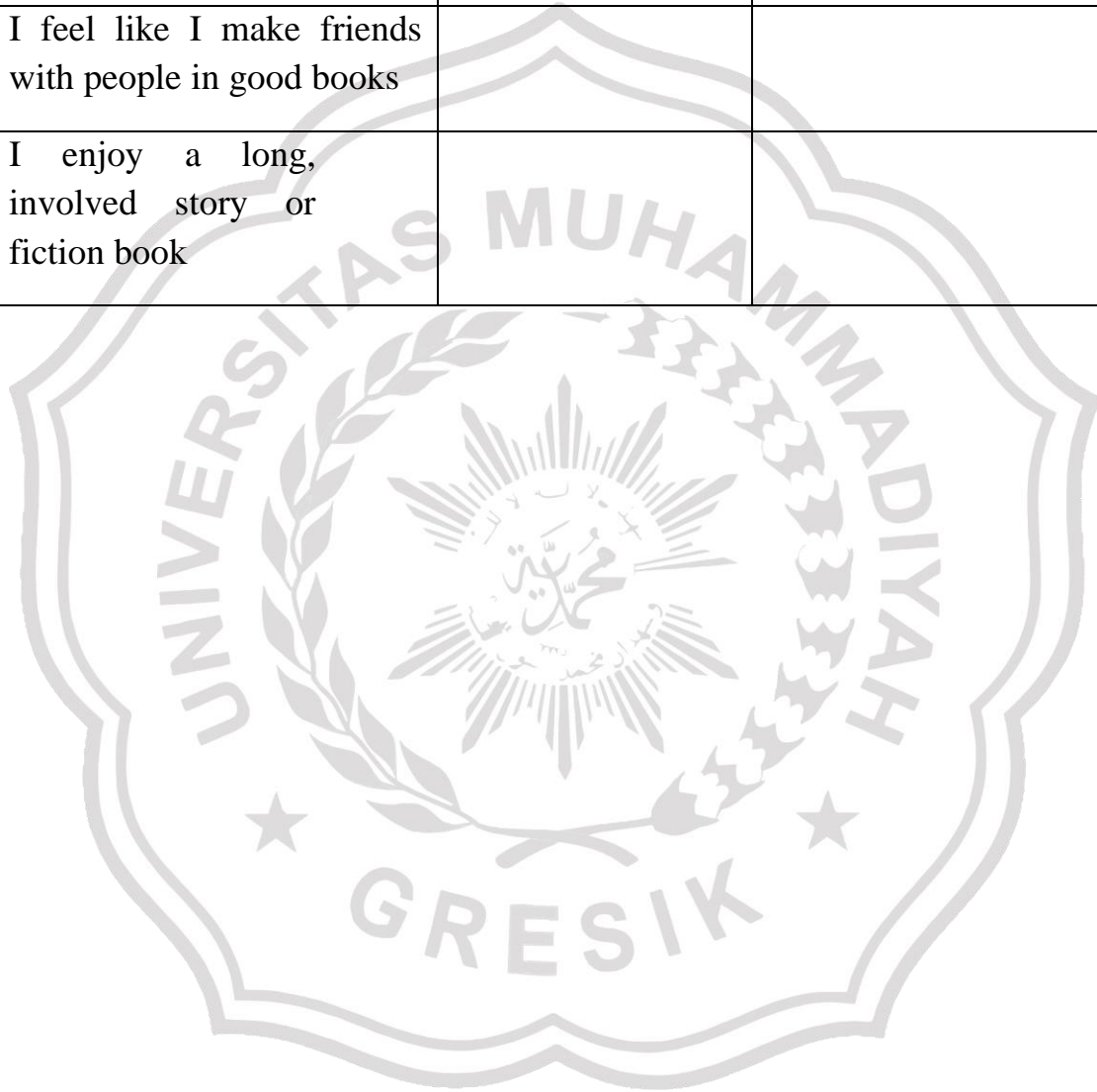
Semester : 1 / 3

Gender : .....

Put a check mark ( ✓ ) on several items next to them that match your description of your abilities.

SUBJECT	AGREE	DISAGREE
I like hard, challenging books		
I like it when the questions in books make me think		
I usually learn difficult things by reading		
If a book is interesting I don't care how hard it is to read		
I have favorite subjects that I like to read about		
I read to learn new information about topics that interest me		
I like to read about my hobbies to learn more about them		
I like to read about new		

things		
I read stories about fantasy and make believe		
I like mysteries		
I feel like I make friends with people in good books		
I enjoy a long, involved story or fiction book		



- REFERENCES TEST ( [www.bestmytest.com](http://www.bestmytest.com) & [www.ets.org](http://www.ets.org))

**Reading Practice Set**

**Directions:** Read the passage. Give yourself 18 minutes to complete this practice set.

**The Geologic History of the Mediterranean**

1. In 1970 geologists Kenneth J. Hsu and William B. F. Ryan were collecting research data while aboard the oceanographic research vessel *Glomar Challenger*. An objective of this particular cruise was to investigate the floor of the Mediterranean and to resolve questions about its geologic history. One question was related to evidence that the invertebrate fauna (animals without spines) of the Mediterranean had changed abruptly about 6 million years ago. Most of the older organisms were nearly wiped out, although a few hardy species survived. A few managed to migrate into the Atlantic. Somewhat later, the migrants returned, bringing new species with them. Why did the near extinction and migrations occur?
2. Another task for the *Glomar Challenger*'s scientists was to try to determine the origin of the domelike masses buried deep beneath the Mediterranean seafloor. These structures had been detected years earlier by echo-sounding instruments, but they had never been penetrated in the course of drilling. Were they salt domes such as are common along the United States Gulf Coast, and if so, why should there have been so much solid crystalline salt beneath the floor of the Mediterranean?
3. With questions such as these clearly before them, the scientists aboard the *Glomar Challenger* proceeded to the Mediterranean to search for the answers. On August 23, 1970, they recovered a sample. The sample consisted of pebbles of hardened sediment that had once been soft, deep-sea mud, as well as granules of gypsum and fragments of volcanic rock. (Begin highlight) Not a single pebble was found that might have indicated that the pebbles came from the nearby continent (End highlight) . In the days following, samples of solid gypsum were repeatedly brought on deck as drilling operations penetrated the seafloor. Furthermore, the gypsum was found to possess peculiarities of composition and structure that suggested it had formed on desert flats. Sediment above and below the gypsum layer contained tiny marine fossils, indicating open ocean conditions. As they drilled into the central and deepest part of the Mediterranean basin, the scientists took solid, shiny, crystalline salt from the core barrel. Interbedded with the salt were thin layers of what appeared to be windblown silt.
4. The time had come to formulate a hypothesis. The investigators theorized that about 20 million years ago, the Mediterranean was a broad seaway linked to the Atlantic by two narrow straits. Crustal movements closed the straits, and the landlocked Mediterranean began to evaporate. Increasing salinity caused by the evaporation resulted in the extermination of (Begin highlight) scores (End highlight) of invertebrate species. Only a few organisms especially tolerant of very salty conditions remained. As evaporation continued, the remaining brine (salt water) became so dense that the calcium sulfate of the hard layer was precipitated. In the central deeper part of the basin, the last of the brine

evaporated to precipitate more soluble sodium chloride (salt). Later, under the weight of overlying sediments, this salt flowed plastically upward to form salt domes. Before this happened, however, the Mediterranean was a vast desert 3,000 meters deep. Then, about 5.5 million years ago came the deluge. (Begin highlight) As a result of crustal adjustments and faulting, the Strait of Gibraltar, where the Mediterranean now connects to the Atlantic, opened, and water cascaded spectacularly back into the Mediterranean. (End highlight) Turbulent waters tore into the hardened salt flats, broke them up, and ground them into the pebbles observed in the first sample taken by the Challenger. As the basin was refilled, normal marine organisms returned. Soon layers of oceanic ooze began to accumulate above the old hard layer.

5. The salt and gypsum, the faunal changes, and the unusual gravel provided abundant evidence that the Mediterranean was once a desert.

**1. Which of the following is NOT mentioned in paragraph 1 as a change that occurred in the fauna of the Mediterranean?**

- A. Most invertebrate species disappeared during a wave of extinctions.
- B. A few hardy species wiped out many of the Mediterranean's invertebrates.
- C. Some invertebrates migrated to the Atlantic Ocean.
- D. New species of fauna populated the Mediterranean when the old migrants returned.

**2. What does the author imply by saying “ (Begin highlight) Not a single pebble was found that might have indicated that the pebbles came from the nearby continent (End highlight) ”?**

- A. The most obvious explanation for the origin of the pebbles was not supported by the evidence.
- B. The geologists did not find as many pebbles as they expected.
- C. The geologists were looking for a particular kind of pebble.
- D. The different pebbles could not have come from only one source.

**3. Select the TWO answer choices from paragraph 3 that identify materials discovered in the deepest part of the Mediterranean basin. To receive credit, you must select TWO answers.**

- A. Volcanic rock fragments
- B. Thin silt layers
- C. Soft, deep-sea mud
- D. Crystalline salt

**4. What is the main purpose of paragraph 3 ?**

- A. To describe the physical evidence collected by Hsu and Ryan
- B. To explain why some of the questions posed earlier in the passage could not be answered by the findings of the *Glomar Challenger*
- C. To evaluate techniques used by Hsu and Ryan to explore the sea floor
- D. To describe the most difficult problems faced by the *Glomar Challenger* expedition

**5. According to paragraph 4, which of the following was responsible for the evaporation of the Mediterranean's waters?**

- A. The movements of Earth's crust
- B. The accumulation of sediment layers
- C. Changes in the water level of the Atlantic Ocean
- D. Changes in Earth's temperature

**6. The word “ (Begin highlight) scores (End highlight) ” in the passage is closest in meaning to**

- A. members
- B. large numbers
- C. populations
- D. different types

**7. According to paragraph 4, what caused most invertebrate species in the Mediterranean to become extinct?**

- A. The evaporation of chemicals necessary for their survival
- B. Crustal movements that connected the Mediterranean to the saltier Atlantic
- C. The migration of new species through the narrow straits
- D. Their inability to tolerate the increasing salt content of the Mediterranean

**8. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 4 ? Incorrect choices change the meaning in important ways or leave out essential information.**

- A. The Strait of Gibraltar reopened when the Mediterranean and the Atlantic became connected and the cascades of water from one sea to the other caused crustal adjustments and faulting.
- B. The Mediterranean was dramatically refilled by water from the Atlantic when crustal adjustments and faulting opened the Strait of Gibraltar, the place where the two seas are joined.
- C. The cascades of water from the Atlantic to the Mediterranean were not as spectacular as the crustal adjustments and faulting that occurred when the Strait of Gibraltar was connected to those seas.
- D. As a result of crustal adjustments and faulting and the creation of the Strait of

Gibraltar, the Atlantic and Mediterranean were connected and became a single sea with spectacular cascades of water between them.

**9. In paragraph 2 of the passage, there is a missing sentence. The paragraph is repeated below and shows four letters (A, B, C, and D) that indicate where the following sentence could be added. Thus, scientists had information about the shape of the domes but not about their chemical composition and origin.**

**Where would the sentence best fit?**

**(Begin highlight) (A) (End highlight)** Another task for the *Glomar Challenger*'s scientists was to try to determine the origin of the domelike masses buried deep beneath the Mediterranean seafloor. **(Begin highlight) (B) (End highlight)** These structures had been detected years earlier by echo-sounding instruments, but they had never been penetrated in the course of drilling. **(Begin highlight) (C) (End highlight)** Were they salt domes such as are common along the United States Gulf Coast, and if so, why should there have been so much solid crystalline salt beneath the floor of the Mediterranean? **(Begin highlight) (D) (End highlight)**

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**10. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the THREE answer choices that express the most important ideas in the passage. Some sentences do not belong in the summary because they express ideas that are not presented in the passage or are minor ideas in the passage. This question is worth 2 points.** Write your answer choices in the spaces where they belong. You can either write the letter of your answer choice or you can copy the sentence.

- An expedition to the Mediterranean answered some long-standing questions about the ocean's history.
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- 
- 

A. The *Glomar Challenger* expedition investigated changes in invertebrate fauna and some unusual geologic features.

B. Researchers collected fossils to determine which new species migrated from the Atlantic with older species.

C. Scientists aboard the *Glomar Challenger* were the first to discover the existence of domelike masses underneath the seafloor.

D. Samples recovered from the expedition revealed important differences in chemical composition and fossil distribution among the sediment layers.

E. Evidence collected by the *Glomar Challenger* supports geologists' beliefs that the Mediterranean had evaporated and become a desert, before it refilled with water.

F Mediterranean salt domes formed after crustal movements opened the straits between the Mediterranean and the Atlantic, and the Mediterranean refilled with water.

### **Charles Darwin's Theory of Evolution**

[1] Charles Darwin's Theory of Evolution is known as one of the most important and controversial scientific theories ever published. Darwin was an English scientist in the 19th century best known for his book "On the Origin of Species." In his book, Darwin **postulated** different species shared characteristics of common ancestors, that they branched off from common ancestors as they evolved, and that new traits and characteristics were a result of natural selection.

**The theory is based on the assumptions that life developed from non-life and progressed and evolved in an indirect manner.** Therefore, the Theory of Evolution, while controversial, has shaped and influenced the modern scientific world's thinking on the development of life itself. Darwin was born February 12, 1809 in England. Although initially entering into medicine, Darwin chose to pursue his interest in natural science and embarked on a five-year journey aboard the H.M.S. Beagle, a British sloop belonging to the Royal Navy. Because of his experience aboard the Beagle, he laid the foundation for his Theory of Evolution while also establishing himself within the scientific community. Specifically, Darwin's keen observation of the fossils and wildlife he saw during his time on the Beagle served as the basis for the cornerstone of his theory: natural selection.

[2] Natural selection contributes to the basis of Darwin's Theory of Evolution. One of the core tenets of Darwin's theory is that more offspring are always produced for a species than can possibly survive. Yet, no two offspring are perfectly alike. As a result, through random mutation and genetic drift, over time offspring develop new traits and characteristics. Over time beneficial traits and

characteristics that promote survival will be kept in the gene pool while **those** that harm survival will be selected against. Therefore, this natural selection ensures that a species gradually improves itself over an extended duration of time. On the other hand, as a species continues to 'improve' itself, it branches out to create entirely new species that are no longer capable of reproducing together.

[3] Through natural selection, organisms could branch off of each other and evolve to the point where they no longer belong to the same species. Consequently, simple organisms evolve into more complex and different organisms as species break away from one another. Natural selection parallels selective breeding employed by humans on domesticated animals for centuries. Namely, horse breeders will ensure that horses with particular characteristics, such as speed and endurance, are allowed to produce offspring while horses that do not share those above-average traits will not. Therefore, over several generations, the new offspring will already be pre-disposed towards being excellent racing horses.

[4] Darwin's theory is that 'selective breeding' occurs in nature as 'natural selection' is the engine behind evolution. Thus, the theory provides an excellent basis for understanding how organisms change over time. Nevertheless, it is just a theory and elusively difficult to prove. One of the major holes in Darwin's theory revolves around "irreducibly complex systems." An irreducibly complex system is known as a system where many different parts must all operate together. As a result, in the absence of one, the system as a whole collapses. Consequently, as modern technology improves, science can identify these "irreducibly complex systems" even at microscopic levels. These complex systems, if so inter-reliant, would be resistant to Darwin's supposition of how evolution occurs. As Darwin himself admitted, "To suppose that the eye with all its inimitable **contrivance** for adjusting the focus for different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberration, could have been formed by natural selection, seems, I free confess, absurd in the highest degree".



[5] In conclusion, “On the Origin of Species” is known as one of the most **consequential** books ever published. Darwin's Theory of Evolution remains, to this day, a lightning rod for controversy. The theory can be observed repeatedly, but never proven, and there are a **plethora** of instances that cast doubt on the processes of natural selection and evolution. Darwin's conclusions were a result of keen observation and training as a naturalist. Despite the controversy that swirls around his theory, Darwin remains one of the most influential scientists and naturalists ever born due to his Theory of Evolution.

11. According to **paragraph 1**, where did Charles Darwin begin to observe and formulate the basis for his Theory of Evolution?

- A. Medical School
- B. Observing Horse Breeders
- C. England
- D. Aboard the H.M.S. Beagle

12. The word '**postulated**' in **paragraph 1** is closest in meaning to:

- A. disagree
- B. prove
- C. oppose
- D. hypothesize

13. Which sentence is most similar to the following sentence from **paragraph 1**?  
***The theory is based on the assumptions that life developed from non-life and progressed and evolved in an indirect manner.***

- A. The Theory of Evolution is founded on evidence that non-organic compounds are the basis of life, developed in an unguided way.
- B. Based on certain assumptions, we can prove that evolution occurs in all living and non-living entities.
- C. According to Darwin, if we assume that life at its origin was created from non-organic compounds and developed in an unguided manner, his theory holds true.
- D. Due to the controversy, it is hard to make assumptions about the Theory of Evolution.

14. According to **paragraph 2**, what are the causes for species developing new traits and characteristics?

- A. medicine and longevity
- B. survival and selection

- C. mutation and genetic drift
- D. tenets and theory

15. The word 'those' in **paragraph 2** refers to:

- A. gene pool
- B. survival
- C. natural selection
- D. traits and characteristics

16. According to **paragraph 3**, what is natural selection most comparable to as a process?

- A. branching trees
- B. selective breeding
- C. irreducibly complex systems
- D. the human eye

17. What is the purpose of **paragraph 3** in the passage?

- A. To show the simple-to-complex nature of natural selection in context
- B. To create doubt as to the validity of the theory
- C. To contrast with the ideas presented in paragraph 2
- D. To segue into the main point presented in paragraph 4

18. The word 'contrivance' in **paragraph 4** is closest in meaning to:

- A. organization
- B. retention
- C. absurdity
- D. systems

19. The word 'consequential' in **paragraph 5** is closest in meaning to:

- A. important
- B. measurable
- C. fragmented
- D. dismissible

20. The word 'plethora' in **paragraph 5** is closest in meaning to:

- A. large
- B. sufficient

- C. essential
- D. prominent

Key Answer

1. **B**
2. **A**
3. **B, D**
4. **A**
5. **A**
6. **B**
7. **D**
8. **B**
9. **C**
10. **A, D, E**
11. **D**
12. **D**
13. **C**
14. **C**
15. **D**
16. **B**
17. **A**
18. **D**
19. **A**
20. **A**

