PASSAGE 3

There are many types of stars in different stage of their lives and the sun today is a yellow dwarf star. It is fueled by thermonuclear reactions near its center that convert hydrogen to helium. The sun has existed in its present state for about four billion six hundred million years and thousands of times larger than the earth.

By studying other stars, astronomers can predict what the rest of the sun's life will be like. About five billion years from now, the core of the sun will shrink and become hotter. The surface temperature will fall. The higher temperature of the center will increase the rate of thermonuclear reactions. The outer regions of the sun will expand approximately 35 million miles, about the distance to Mercury, which is the closest planet to the sun. The sun will then be a red giant star. Temperature on the earth will become too high for life to exist.

Once the sun has used up its thermonuclear energy as a red giant, it will begin to shrink. After it shrinks to the size of the Earth, it will become a white dwarf star. The sun may throw off huge amounts of gases in violent eruptions called Nova explosions as it changes from a red giant to a white dwarf. After billions of years as a white dwarf, the sun will have used up all its fuel and will have lost its heat. Such a star is called a black dwarf. After the sun has become a black dwarf, the Earth will be dark and cold. If any atmosphere remains there, it will have frozen over the Earth`s surface.

1.What is the primary purpose of this passage?

A) To alert people to the dangers posed by the Sun.

B) To discuss conditions on Earth in the far future.

C) To present a theory about red giant stars.

D) To describe changes that the Sun will go through.

2. The word “fueled” in paragraph 1 is closest in meaning to :

A) powered B) bombarded

C) created D) propelled

3.The word “state” in paragraph 2 is closest in meaning to:

A) shape B) condition

C) location D) size

4. It can be inferred from the passage that the Sun

A) is approximately halfway through its life as a yellow dwarf

B) has been in existence for 10 billion years

C) is rapidly changing in size and brightness

D) will continue as a yellow dwarf for another 10 billion years

5. What will probably be the first stage of change as the Sun becomes a red giant?

A) Its core will cool off and use less fuel.

B) Its surface will become hotter and shrink.

C) It will throw off huge amounts of gases.

D) Its center will grow smaller and hotter.

6. When the Sun becomes a red giant, what will conditions be like on Earth?

A) Its atmosphere will freeze and become solid.

B) It will be enveloped in the expanding surface of the Sun.

C) It will become too hot for life to exist.

D) It will be nearly destroyed by nova explosions.

7. According to the passage, which of the following best describes the sequence of stages that the Sun will probably pass through?

A) Yellow dwarf, white dwarf, red giant, black giant

B) Red giant, white dwarf, red dwarf, nova explosion

C) Yellow dwarf, red giant, white dwarf, black dwarf

D) White dwarf, red giant, black dwarf, yellow dwarf

8. The phrase “throw off” in paragraph 3 is closest in meaning to:

A) eject B) burn up

C) convert D) let in

9. The word “there” in paragraph 4 refers to:

A) our own planet

B) the outer surface of the Sun

C) The core of a black dwarf

D) the planet Mercury

10. Which of the following best describes the tone of the passage?

A) Alarmed B) Pessimistic

C) Comic D) Objective