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3. Form correct compound words from the list of words given and fill in the blanks : (4 x 1/2 = 2)

[Store, vapour, heavy, solar, room, water, industry, energy]

- (a) The \_\_\_\_\_ filled the jar when the saline water was heated.  
(b) Iron and steel plant is a \_\_\_\_\_  
(c) The arms were kept in the \_\_\_\_\_  
(d) \_\_\_\_\_ is a green form of energy.

Write a Single line definition for any TWO of the following terms : (2 x 1 = 2)

- (a) Microscope  
(b) Hard disk  
(c) a satellite  
(d) a bag pipe

5. Fill in the blanks with the suitable tense forms of the given verbs in the bracket : (4 x 1/2 = 2)

An eclipse of the Sun \_\_\_\_\_ (happen) when the New Moon \_\_\_\_\_ (move) between the Sun and Earth, blocking out the Sun's rays and casting a shadow on parts of Earth. On August 21st people \_\_\_\_\_ (watch) a solar eclipse when it \_\_\_\_\_ (cross) the USA.

6. Choose the correct verb form that agrees with the subject : (4 x 1/2 = 2)

- (a) \_ Researchers - **(have/has) designed new 'smart' solar** sunglasses incorporating semi-transparent organic solar cells that **(generates / generate)** electric power enough to operate devices such as hearing aids.  
(b) The solar cells \_\_\_\_\_ (is /are) very exciting devices. The invention \_\_\_\_\_ (paves/ pave) the way for other future applications

7. Rewrite the following conversation in the Reported Speech : (2 x 1 = 2)

Ravi: Have you registered for the essay competition?

Babu: • Yes, I registered .yesterday.

8. Fill in the blanks- with the correct words given in brackets and complete the sentences : (4 x 1/2 = 2)

(driving, currently, dissolved, effectively)

Water desalination processes separate \_\_\_\_\_ salts and other minerals from water. Membrane separation requires \_\_\_\_\_ forces including pressure which \_\_\_\_\_ force water .through membrane processes. Numerous membrane filtration seawater desalination plants are \_\_\_\_\_ under construction or in the planning stages up and down

and warm water around the earth. So, the warm water that replaces the cold on the surface travels northward, increasing the temperature of the Atlantic Ocean. That's why countries that border the Atlantic Ocean are relatively warmer than landlocked countries during the wintertime.

However, the cold water doesn't always stay at the bottom of the ocean. Instead, it comes up at different places around the globe called upwelling. Since the ocean floor contains many nutrients important for survival, the cold water that rises to the surface brings these nutrients with it, attracting all forms of life. Usually every level of the food chain is present at these upwellings, making them great spots for fishing. In fact, upwellings are common in areas where winds blow water away from the surface. In coastal areas, sometimes winds (called longshore winds) blow perpendicular to the land over the ocean, pushing the warm water away from the coast. This allows the cold water at the bottom to rise up and replace the warmer water. Therefore, some coastal areas are effective places to fish due to the upwelling that attracts more fish to the area.

### **The Global Conveyor Belt**

As previously mentioned, the global conveyor belt describes the current that runs throughout the earth's waters, driven by the cold waters at the poles. The "belt" starts in the North Atlantic Ocean, where the cold water that surrounds the ice sinks, and starts to flow around the world. A current is created as warm water rushes to the surface to replace the sinking cold water. The cold, dense water moves southward in between the continents toward South America and Africa—and as it passes the equator, the water warms. As the water passes Antarctica, it is retooled by the ice near the South Pole. It continues to move on from there and splits into two paths: one that veers off toward the Indian Ocean, and the other toward the Pacific Ocean. These two paths gradually warm up as they travel northward, causing them to rise to the surface (which, as we know, is called an upwelling). The currents' eventually return to the North Atlantic, where the journey begins again. Although the path of the global conveyor belt can be quickly explained, the actual travel time occurs very slowly—the waters travel at slow speeds when compared to tidal currents.

### **Ocean Currents and Climate**

The effect that ocean currents have on the earth's climate is still being studied by scientists around the world, but we know a few things for sure. The ocean plays a huge role in redistributing heat around the globe, like we previously explained. However, there are certain ocean currents, like the Gulf Stream (which is part of the global conveyor belt) that have a direct effect on the climates of countries they pass. The Gulf Stream travels past the Caribbean and Florida, carrying warm water, then turns off to the right toward Europe—specifically England and Ireland. That's why the northeastern part of the United States and Canada has a cooler climate; the Gulf Stream doesn't bring warm water to its shores, causing colder temperatures. And since the direction of currents is always affected by wind direction (like we previously described with upwellings), climate is indirectly affected by wind as well.

Based on the passage, why is the global conveyor belt important?

- (1) It helps the ocean absorb heat from the countries which it surrounds
- (2) It circulates the warm and cold water that regulate the temperature of the earth
- (3) It helps the polar ice caps stay frozen. This ice triggers the movement of ocean currents
- (4) It is the cause of upwellings that provide nutrients to various forms of life in the ocean

(v) What is this passage mostly about?

- (1) the effects of global warming on the future of the planet
- (2) the human need to stay hydrated
- (3) the excellent fishing on the Gulf Stream
- (4) the role of the ocean's currents in maintaining the earth's temperature

(vi) Read the following sentences from the passage: "Water is vital for our existence. Not only do we drink it for survival, the majority of the human body. is also composed of water."

As used in the passage, what does the word "vital" mean?

- (1) unimportant
- (2) essential
- (3) additional
- (4) minor

(vii) Choose the answer that best completes the sentence below.

When ice freezes, the water around it become's saltier and colder. \_\_\_\_\_, its density increases.

- (1) Therefore
- (2) On the other hand
- (3) In contrast
- (4) Especially

(viii) Which of the following statements is false?

- (1) One of the reasons for increase of temperature is due to CO<sub>2</sub> in atmosphere
- (2) Melting of ice has not disrupted the movement of global conveyor belt
- (3) The other name of global warming is climate change
- (4) Global warming may result in colder temperature in some areas

Lester Brown : The other source of uncertainty is the effect of population growth on natural support systems. Within the last month, the 5 billionth living human arrived on earth. As recently as 1950, there were only half that many people. The effects of this enormous increase in human numbers are becoming evident in many parts of the Third World, but particularly in Africa.

On the African continent, grain production per person has declined by more than a fifth since 1967. But more serious than the decline itself is the fact that there isn't anything being done, in the form of either family planning or food production, to indicate that the decline is going to be reversed in the foreseeable future. In 1985, out of some 545 million Africans, 170 million were fed entirely on grain from Abroad.

Answer the following questions in 2 sentences :

(4 x 2 = 8)

- (i) What is the result of burning fossil fuels?
- (ii) How does acid rain affect the earth?
- (iii) How are the trees affected because of acid rain?
- (iv) What two effects are felt in Africa?

12. (a) Most of the rain water gets wasted. Write EIGHT recommendations by which rain water could be preserved for growing crops.

Or

- (b) *There- is one death every four minutes due to a road accident in India.* Write eight instructions that the two wheeler riders should follow to avoid such accidents.

15. (a) The mobile phone has a great impact on the young generation. Write an essay of 250 words analysing the positive and negative impact of it on the youth. Give suggestions how to make mobile phones more productive and useful for learning to the young generation.

Or

- (b) Write an essay of 250 words on the following topic "The influence of music to the influence of books" comparing the influence of music to the influence of books on the youth.

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