Is There Anybody Out There ? reading passage

Is There Anybody Out There ? - The Search For Extra - Terrestrial Intelligence

A. Our basic curiosity is being the fundamental reason for human search. This same curiosity about the natural world drives all pure science. We are curious about whether we are alone in the universe. We are having a drive to know if the right conditions are enough to bring out life or is there anything special about earth which fostered a variety of life forms that we are seeing around us. The simple detection of radio signals is enough to satisfy our curiosity. In this way, we can say that SETI is part of the pure science machinery which is continually expanding the horizons of knowledge. There are other reasons also why we are inquiring whether life exists elsewhere. For example, Civilization on earth started only about a few thousand years ago only but our survival disturbed because of pollution and nuclear war that has happened over the last few decades. Can we survive for a few more years or we'll be dead. The lifetime of a planet is about several billion years. If any other civilization survived in our galaxy, then their ages will range from zero to several billion years. We'll have a positive note just by knowing the existence of such civilizations as proof of long-term survival is possible. We might also gain some lessons on how to tackle the threats like nuclear war or global pollution and the threat that we have not encountered as of now, from the experience of older civilization.

B. Most SETI scientists have two ground rules, in the discussion of whether we are alone in the universe. First, most of the scientists ignore UFOs (Unidentified Flying Objects) as they don't have strong evidence, which can be considered seriously. It is still important to have an open mind since any convincing evidence could emerge in future. Second, we have a conservative belief that we are looking for a life form which is similar to ours, so it is difficult to recognize the life form as a life form if it does not resemble us. To put it another way, the life form we are looking for might have blue heads and five legs, still, it nevertheless has similarities to us in that it must communicate with its fellows. It could be interested in the universe, living in a planet orbiting a star like our Sun, and likely it has chemistry based on carbon and water.

C. Though we are making these sorts of assumptions, we have a limited understanding about other life forms. For example, we are lacking knowledge about how many stars have planets or how likely life arises naturally, given the appropriate conditions. When we look at the 100 billion stars in our galaxy and 100 billion galaxies, it is impossible to believe that at least one of the planets does not have a life form on it. Guessing based on our limited knowledge about the conditions for carbon-based life, we can estimate that probably one in 100,000 stars might have a life-bearing planet orbiting it. Perhaps, our nearest neighbour could be a thousand light years away. It is almost like a next door in astronomical terms.

D. An alien civilization could send information by using a variety of ways, across the galaxy. But, either it requires too much energy to send the information or it could be disturbed while travelling through the vast distances across the galaxy. In the frequency range of 1000 to 3000 MHz, radio waves travel the greatest distance. To date, All searches have focused on looking for radio waves in this frequency range. For now, there have been a number of searches done by various groups, like Australian searches using the radio telescope at Parkes, New South Wales. Still now, nothing is detected from the few hundred stars which have been searched. Since 1992, the scale of searches has increased tremendously, as the US Congress voted NASA $10 million per year for ten years to perform a thorough search for extra-terrestrial life. For this project, a lot of money is being spent on developing the special hardware required to search multiple frequencies at the same time. The project constitutes two parts. First part is a targeted search by the means of world's largest radio telescopes. The American operated telescope in Arecibo and the French telescope in France. This part of the project is searching for the signals in the frequency range of 1000 to 3000 MHz, in the nearest 1000 stars. The second part of the project is an undirected search which monitors all of the space with a lower one using the NASA Deep Space Network's smaller antennas.

E. There is a substantial amount of debate happening based on how we must react if we detect a signal from an alien civilization. Everyone agrees that we must not respond immediately. Even if it is not possible to send a reply for a long distance at short notice, there are ethical questions emerging that should be addressed by the global community before sending the reply. Is it that we face a cultural shock if we encounter a superior and much older civilization ? Fortunately, there is no urgency about this. We are

searching for stars which are hundreds of light years away. So, it takes hundreds of years of time for their signal to reach us. And, it will take a further few hundred years for our reply to reach them. Therefore, it is not important whether there is a delay of a few years or decades, while the human race debates about whether to reply to them or perhaps draft a reply carefully.

Is There Anybody Out There ? IELTS Reading Questions

Questions 1 - 5

The reading passage has five paragraphs, **A-E**.

Choose the correct heading for each paragraph from the list of headings below.

Write the correct number, **i-vii,** as your answer to each question.

List of Headings

- i. Limitations in Human Understanding
- ii. Great Astronomers
- iii. What should humans do if they got the signal from an alien civilization
- iv. Project for searching for the aliens' signals
- v. How telescope contributes for finding the signals of alien civilization
- vi. How finding alien civilization can help humans.
- vii. Ground rules of SETI scientists

1. Paragraph A
2. Paragraph B
3. Paragraph C
4. Paragraph D

5. Paragraph E

Questions 6 - 10

Do the following statements agree with the information given in the Reading Passage?

Write

YES if the statement agrees with the claims of the writer

NO, if the statement contradicts the claims of the writer

NOT GIVEN if it is impossible to say what the writer thinks about this

6. We need more than radio signals to satisfy our curiosity
7. We can gain from the experience of older civilizations to survive better
8. Most scientists believe in UFOs.
9. We can easily detect alien signals as we have a great understanding about space.
10. ISRO trying to detect the signals of alien for 20 years

Questions 11 - 14

Answer the questions below.

Write **NO MORE THAN THREE WORDS** from the passage for each answer.

11. Which signals can satisfy our curiosity ?
12. Which machinery's part is the SETI ?
13. How many ground rules does SETI have ?
14. How much the US Congress voted NASA per year to conduct a thorough search for extra-terrestrial life.