Bio Fuels

A. We're informed that corn yields will soon be worth as much as oil. This is due to the promotion of corn and a few other crops as the next-generation biofuels. All fuels made from organic material are collectively referred to as biofuels. The two most popular biofuels are biodiesel and bioethanol, which can be used in place of gasoline. Rising oil prices have not only made biofuels economically viable again after a long absence, but they may also enable nations to import fewer fossil fuels in the future. But in the eyes of many, their reputation as eco-friendly is what really makes them stand out.

B. Proponents assert that because the crops absorb carbon dioxide from the atmosphere as they grow, they will significantly reduce our net emissions of greenhouse gases. Given this information, it should come as no surprise that environmentalists and governments from all over the world are supporting the idea and expecting that soon we will be using this eco-friendly option to power our vehicles, buses, and trains. But some experts are starting to doubt the social and environmental justifications for biofuels. They think biofuels won't solve the issue; instead, they'll obliterate rainforests, drain water supplies, wipe off species, and drive up food prices. Worst of all, they assert that if the technology underlying them does not advance, many biofuels will hardly mitigate global warming at all. Supporters of biofuel argue that since it is still in its infancy, we should give this technology the time and resources necessary to fulfill its potential. So, who is correct?

C. While the controversy may be recent, the concept of biofuels is not. Rudolf Diesel, who developed the diesel engine in 1892, ran his demonstration model on peanut oil even though the Model T Ford, which was initially built in 1908, was supposed to operate on ethanol. As petroleum-based gasoline appeared and become cheaper to generate, biofuels lost popularity. But some nations moved back to biofuels after the early 1970s oil crisis. For instance, Brazil has been using sugarcane to produce significant amounts of ethanol for more than 30 years. Brazilian legislation now mandates that bioethanol, which is compatible with all gasoline-powered vehicles, be blended with the fuel at a rate of 20%. Even more than 15% of cars in Brazil can run entirely on bioethanol.

D. Brazil uses just 3% of its agricultural area to produce 10% of its whole fuel consumption, so it's not surprise that other countries are trying to adopt its strategy. This is according to a recent research by the World Watch Institute. The issue is that the figures don't tally up in the majority of other nations. According to the same analysis, the US would need 30% of its agricultural area to reach that 10% goal, and Europe would need a whopping 72%. There is no mystery as to why things compare so differently. Brazilians not only drive far less than Europeans and Americans, but also produce more crops and have lower population densities because to their lush terrain and good climate.

E. At every stage of production, from seed sowing to fuel production, a number of research teams have attempted to compare the emissions of fossil fuels with those of corn bioethanol. Scientific ambiguities, such as how much of the greenhouse gas

nitrous oxide is created by the nitrogen fertilizer used to grow corn, have plagued the experiments. The results vary greatly since there is disagreement about what should and should not be taken into account in the calculation, but a study by David Pimental at Cornell University in New York came to the conclusion that burning maize ethanol produces more greenhouse gases than doing so.

F. The fact that producing maize for ethanol takes up land that is currently used to produce food for the world is another reason why an increasing number of people are opposed to biofuels. Veteran critic and campaigner on food issues Lester Brown claims that the amount of corn needed to fill a 44 tank with bioethanol just once could feed one person for a year. He believes that a rise in bioethanol would result in a race between the three billion people who live on less than $2 per day, many of whom are currently spending more than half their income on food, and the 800 million people who own cars worldwide.

G. Are we already wrong to believe that bioethanol may herald in a new era of environmentally friendly energy? It certainly appears that way given the current course of events, but it is not necessary. The goal of scientists is to develop a method for producing biofuels from waste biomass and non-food crops while preserving maize and other food crops for human use and doing so without harming the environment. Already, scientists are learning how to create ethanol from cellulose-rich organic debris. All green plants' primary structural element is cellulose. Its molecules are chains of sugars robust enough to form the cell walls of plants. These molecules could be fermented to produce ethanol if you could split them apart to liberate the sugars they hold. Creating such a technique could make it possible to use non-food resources like straw, crop byproducts like stalks, and hardwood chips, as well as switchgrass, a wild grass found in the Midwest and eastern regions of the US. According to its proponents, these cellulose materials might produce twice as much ethanol per hectare as corn while using land that is currently neither commercially useful nor valuable in terms of the environment. Some people even believe that municipal waste like paper, cardboard, and leftover food may be repurposed. If the calculations add up, this could be the innovation that finally frees us from our reliance on oil without harming the planet.

Bio fuels IELTS Reading Questions

Question 1-6

Reading Passage has seven paragraphs, A – G. Which paragraph contains the following information.

1. Factors contributing to the region's successful bioethanol production
2. A person's forecast of what would happen if corn ethanol output rises
3. a discussion of how biofuels might decrease global warming
4. a description of biofuel

5. a mention of studies that revealed one type of bioethanol to be less environmentally favourable than oil
6. Illustrations of ethanol fuel use prior to petroleum

Question 7-12

Complete the summary below. Choose **NO MORE THAN TWO WORDS** from the passage for each answer.
Using Non-Fuel Crops to Make Biofuels

Cellulose is a key component of green plants. Sugars make up the **7**.....of cellulose. These make up the **8**……group of plants. The sugars may be extracted and allowed to **9**…….... , which would result in the production of ethanol. One typical North American plant that might be applied in this way is **10**..... According to some scientists, this would produce more ethanol than **11**.....Furthermore, the source plant materials could be grown in soil that is not currently used for agriculture and is not beneficial to the **12**……

Question 13

You must select one of the following letters: **A, B, C**, or **D**

13. What is the text's author's conclusion?

A. The world's cheapest fuel will be bioethanol made from sugarcane.
B. Corn-based biofuels could aid the US in achieving this goal of self-sufficiency.
C. It is feasible to quickly create a biofuel that doesn't hurt the environment.
D. Scientists believe that bioethanol will be the preferred fuel in the future.

Bio fuels Reading Answers with Explanations

Here are the *"Bio fuels IELTS reading solutions with explanations"* that will ensure that you grasp the material completely.

(Note: The text in italics is from the reading passage and shows the location from where the answer is taken or inferred. The text in regular font style explains the answer in detail.)

1. D

Key Location: Line 7-9 of paragraph D
Explanation: Line 7-9 of paragraph D states, *“Brazilians not only drive far less than Europeans and Americans, but also produce more crops and have lower population densities because to their lush terrain and good climate.”*

2. F

Key Location: Line5-8 of paragraph F

Explanation: Line 5-8 of paragraph F states, *"He believes that a rise in bioethanol would result in a race between the three billion people who live on less than $2 per day, many of whom are currently spending more than half their income on food, and the 800 million people who own cars worldwide."*

3. B

Key Location: Line 1-3 of paragraph B
Explanation: Line 1-3 of paragraph B states, *"Proponents assert that because the crops absorb carbon dioxide from the atmosphere as they grow, they will significantly reduce our net emissions of greenhouse gases."*

4. A

Key Location: Line 2-3 of paragraph A
Explanation: Line 2-3 of paragraph A states, *"All fuels made from organic material are collectively referred to as biofuels."*

5. E

Key Location: Line 5-8 of paragraph E
Explanation: Line 5-8 of paragraph E states, *"The results vary greatly since there is disagreement about what should and should not be taken into account in the calculation, but a study by David Pimental at Cornell University in New York came to the conclusion that burning maize ethanol produces more greenhouse gases than doing so."*

6. C

Key Location: Line 4-6 of paragraph C
Explanation: Line 4-6 of paragraph C states, *"As petroleum-based gasoline appeared and become cheaper to generate, biofuels lost popularity. But some nations moved back to biofuels after the early 1970s oil crisis."*

7. MOLECULES

Key Location: Line 7-8 of paragraph G
Explanation: Line 7-8 of paragraph G states, *"All green plants' primary structural element is cellulose. Its molecules are chains of sugars robust enough to form the cell walls of plants."*

8. CELL WALLS/ STRUCTURAL COMPONENT

Key Location: Line 7-8 of paragraph G
Explanation: Line 7-8 of paragraph G states, *"All green plants' primary structural element is cellulose. Its molecules are chains of sugars robust enough to form the cell walls of plants."*

9. FERMENT

Key Location: Line 9-10 of paragraph D
Explanation: Line 9-10 of paragraph D states, *"These molecules could be fermented to produce ethanol if you could split them apart to liberate the sugars they hold."*

10. SWITCHGRASS

Key Location: Line 10-12 of paragraph G

Explanation: Line 10-12 of paragraph G states, *“Creating such a technique could make it possible to use non-food resources like straw, crop byproducts like stalks, and hardwood chips, as well as switchgrass, a wild grass found in the Midwest and eastern regions of the US.”*

11. CORN

Key Location: Line 12-14 of paragraph G
Explanation: Line 12-14 of paragraph G states, *“According to its proponents, these cellulose materials might produce twice as much ethanol per hectare as corn while using land that is currently neither commercially useful nor valuable in terms of the environment.”*

12. ENVIRONMENTALLY

Key Location: Line 21-14 of paragraph G
Explanation: Line 12-14 of paragraph G states, *“According to its proponents, these cellulose materials might produce twice as much ethanol per hectare as corn while using land that is currently neither commercially useful nor valuable in terms of the environment.”*

13. C

Key Location: Line 10-12 of paragraph B
Explanation: Line 10-12 of paragraph B states, *“Supporters of biofuel argue that since it is still in its infancy, we should give this technology the time and resources necessary to fulfill its potential.”*