Name: Faishal Monir

ID: 22101235 Section: 05

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Submitted to: Sardar Al Imran Lecturer, GenED, Brac University

Lecturer, General, Brac Oniversity

Q. As coffee is harming nature, will lab grown coffee production can

be an alternative to coffee farming?

Ans: Yes, lab grown coffee can be the future of coffee production due to its potential

traits over traditional coffee cultivation. Talking about traditional coffee cultivation, in

present the major issues that we can see are deforestation, soil erosion, water pollution, poor

labour and low farmer wages etc. But it is now the 21st century and people have access to

various state-of-the-art technology such as GMO, Automated farming monitoring systems,

Various new farming technologies etc. Lab grown coffee is the result of modern research and

development. The key benefits of lab grown coffee are, The product is grown in a control

environment, so environmental issues are rarely seen. There are also no labour and wage

discrimination involved here compared to traditional coffee farming. The production scale

and the taste of the product can be controlled and monitored to suite market needs. This

method can lower down scarce resources use such as water and also the use of different

harmful pesticides. The labs can be powered using wind or solar energy, making it a much

healthier and suitable alternative. Moreover, the plants can be setup near major trade routes

and economic hubs, making it cost-efficient and economically viable as well. With proper

gene alteration and engineering, the taste and other essential minerals can be added, as well

as health factors such as allergies or other issues can be modified, making this universally

consumable. This will ensure lower carbon footprint, biodiversity preservation, climate

resilience, new research opportunities, and lastly a future-proof healthy food alternative.

To sum up, lab-grown coffee offers a sustainable and ethical alternative to traditional

cultivation by reducing environmental harm, conserving resources, and eliminating labour

issues. It ensures consistent quality, customizable taste, and long-term viability as a

future-proof solution for global coffee production.