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Roll No.

B.Tech.

Sixth Semester

MID SEMESTER EXAMINATION

(March-2019)

BT318 BIOENERGY AND BIOFUELS

Time: 1.30 Hours

Max. Marks: 25

Note: Answer all questions.

Assume suitable missing data, if any.

Q.1 Answer any eight of the following questions briefly [1x8]

1. What do you understand by vampire loss of electricity?
2. Write down top 5 bioethanol producing countries, also mention the feedstock they are using.
3. How many types of microorganisms are there based on their energy gain process?
4. Why aerobic respiration produces more ATP; what is the role of oxygen?
5. With nominal wind speed, how does electricity produces in wind turbine?
6. What do you understand by term 'Carbon Footprint'?
7. What is the difference between bioethanol generation from corn and next generation biomass?
8. What is the difference in green house gas emission in using Bioethanol and Biodiesel?
9. What is the utility of electron transport chain in mitochondria?
10. What is the benefit of producing biodiesel from Soybean instead of Canola; though yield is less using soybean as feedstock.
11. What are opportunity fuels?

[PTO]

Q.2 Attempt any four of the following

[3x4]

- A. Describe any innovative recent method of energy generation.
- B. Give details of various starch containing feed stocks.
- C. Suggest different strategies for a energy sustainable world?
- D. Describe Pre-Krebs and Krebs cycle.
- E. Explain the process of ATP formation by ATP synthase in inner membrane of mitochondria.
- F. Describe light reaction which happens in chlorophyll.

Q.3 Write short note on any one of following

[5x1]

- i. Various non-renewable sources of energy.
- ii. Scenario of renewable energy sources in India.

END