

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- Dec 2018

B.Tech (Biotech), VII Semester

COURSE CODE: 14B1WBT731

MAX. MARKS:35

COURSE NAME: Bioenergy and Biofuels

COURSE CREDITS: 03

MAX. TIME: 2 h

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

1. What are the different scenarios of energy forecast by the U.S EIA ? Give a comparative account of ARTI vs DEENBANDU biogas reactors? (CO I) (5 M)
2. Discuss in detail about the strategies for algal biofuels commercialization? (CO II) (5 M)
3. What are the ideal requirements for cultivation of microalgae? Compare the different photobioreactors used for microalgal cultivation? (CO III) (5 M)
4. Summarize the Pros and Cons of dry and wet routes of algal lipid extractions with a neat sketch? (CO III) (5 M)
5. Write about the microalgal product chains used in animal feed, aquaculture and recombinant protein sectors? (CO III) (5 M)
6. What comprises the proximate analysis and ultimate analysis usually done in coal and biomass refineries? What are the main factors which contributes the low-heating value of biomass over coal? (CO IV) (5 M)
7. Summarize in detail the chemistry behind Biomass gasification? (CO IV) (5 M)

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