

## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- April 2018

B.Tech IV Semester

COURSE CODE: 10B11GE411

MAX. MARKS: 25

COURSE NAME: Environmental Studies

COURSE CREDITS: 3

MAX. TIME: 1.5 Hrs

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

1. a) Draw a well labeled sketch of sewage treatment plant indicating all the stages of the treatment.  
b) Explain the function of following in sewage treatment: Aeration, Sludge and Filtration (2+3)
2. a) Discuss the different generations of biofuel production.  
b) What are the possible consequences of polluting the water bodies on human life? (2+2)
3. Explain the following terms in brief: (1+1+3)
  - a) Carbon credits
  - b) GWP
  - c) Greenhouse gases
4. What do you understand by trans-esterification process? What are the effects of FFA and water on yield of biodiesel? (2+2)
5. Give an account on different stages of anaerobic digestion of wastes. What are the different wastes available in India which can be used to generate bioenergy? (2+1)
6. Differentiate between the following: (4)
  - a) Point and Non point sources of water pollution
  - b) Primary and secondary air pollutants