JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT
TEST -3 EXAMINATIONS- 2023
PhD -I Semester

COURSE CODE (CREDITS): 18P1WGE101   MAX. MARKS: 25

COURSE NAME: RESEARCH METHODOLOGIES INCL QUANTITATIVE METDS &

COMP APPLS – Third Module

COURSE INSTRUCTORS: Dr. Ashish Kumar   MAX. TIME: 2 Hours

Note: *(a) All questions are compulsory.*

    (b) The candidate is allowed to make Suitable numeric assumptions wherever required

     for solving problems

Q.No	Question	Marks
Q1	How do we see the generation of Municipal solid waste (MSW) in India, Explain the main component of its with its source of generation.	5
Q2	How does the chemical composition of lignocellulosic biomass influence anaerobic digestion efficiency? What are different methods of treatment of lignocellulosic biomass to increase the anaerobic digestion efficiency	5
Q3	Explain the factors briefly affecting the process of anaerobic digestion.	5
Q4	What are the most cost-effective and sustainable pretreatment methods for converting lignocellulosic waste into fermentable substrates for biogas production?	5
Q5	How, the greenhouse gas emission reductions are achieved through biogas production using biodegradable municipal solid waste compared to traditional waste disposal methods?	5