

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2025

B.Tech (CSE/IT/ECE/CE/ECM) -VII Semester

COURSE CODE (CREDITS): 19B1WBT731(03)

MAX. MARKS: 25

COURSE NAME: Sustainable Technologies for Waste Management

COURSE INSTRUCTOR: Dr. Garlapati Vijay Kumar

MAX. TIME: 1 Hour 30 Min

Note: All questions are compulsory.

Q.No	Question	CO	Marks
Q1	With a neat diagram summarize the different waste-to-energy conversion technologies? Tabulate the reaction conditions and products associated with the pyrolysis, gasification and plasma-based processes?	III	5
Q2	Why e-waste is considered as a problem and considered as hazardous? What being to be done for e-waste problem? Write about the biotechnological approaches for e-waste treatment?	III	5
Q3	Explain in detail about the "Phytoremediation" as a part of conversion less hazardous substances? Write about the "prevention" and "Control" measures associate with the "Mercury pollution"?	I & II	5
Q4	With a neat diagram explain the bioethanol production process from lignocellulosic biomass by including the objective of each associated step?	IV	5
Q5	Write about the basic reaction associated with the transformation of waste oil to biodiesel along with the usage of heterogenous and homogenous catalysts utilization? Write a note on "Whole Crop Biorefinery" concept associated with the biodiesel production?	III & IV	5

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