

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2025

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

COURSE CODE (CREDITS): 19B1WBT731 (03)

MAX. MARKS: 35

COURSE NAME: Sustainable Technologies for Waste Management

COURSE INSTRUCTORS: Dr. Garlapati Vijay Kumar

MAX. TIME: 2 Hours

Note: (a) All questions are compulsory.

Q.No	Question	CO	Marks
Q1	Explain in detail the “Circular Economy” concept by discussing the transformation from Linear to closed Loop by mentioning the associated benefits?	IV	5
Q2	What is the necessity of green composites for the present conditions? Write about the advantages, disadvantages, applications and technical challenges associated with the green composites?	IV	5
Q3	How industrial Ecology concept helps towards waste management by describing the objectives and benefits?	IV	5
Q4	Why we have necessity of conducting the Life Cycle Analysis? Explain about the LCA concept by discussing the different stages and its objectives?	V	5
Q5	Describe briefly about the “Microalgal Biorefinery Concept” by including the advantages and products associated with the concept?	V & III	5
Q6	Illustrate the machinery and operation of MFC technology with a neat diagram and corresponding equations and also write about the different applications of MFC's?	V	5
Q7	Write about the following one's (a) “R” Principles of Solid Waste Management (2.5 M) (b) “Environmental Impact Assessment & Environmental Audit (2.5 M)	I & II	5

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