

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2025

PhD-II Semester (CE)

COURSE CODE (CREDITS): 24P1WCE231 (3)

MAX. MARKS: 25

COURSE NAME: Life Cycle Analysis and Design for Environment

COURSE INSTRUCTORS: Dr. Rishi Rana Kalia

MAX. TIME: 1 Hour 30 Min

Note: (a) All questions are compulsory.

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

Q.No	Question	CO	Marks
Q1	Explain the significance, principles, and ethical considerations for code of good conduct in LCA?	CO-2	5 marks
Q2	Compare and contrast different methods along with their strengths, limitations and applicability in various industries of methods used for environmental impact assessment in LCA?	CO-3	6 marks
Q3	Describe the key steps involved in defining the goal and scope of an LCA study.	CO-2	3 marks
Q4	Choose a product and outline how you would conduct an LCA, following all the major steps. Discuss how a Code of Good Conduct ensures ethical and reliable results.	CO-3	8 marks
Q5	Governments and industries use LCA-based environmental profiles to guide policy-making. (a) What factors should be considered when developing a standardized environmental profile for industrial sectors? (b) How can environmental profiles influence regulatory frameworks like carbon taxation or green labeling?	CO-2 & 3	1.5 marks 1.5 marks