

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATIONS- 2026

B.Tech - VIII Semester

COURSE CODE (CREDITS): 18B1WCE834 (3)

MAX MARKS: 35

COURSE NAME: Sustainable Development

COURSE INSTRUCTOR: Akash Bhardwaj

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

(c) Use of calculator is not allowed

Q.No	Question	CO	Marks
Q1	(a) Differentiate between a protocol and ratification in international environmental agreements. Enlist the outcomes of UNCED, Rio De Janeiro – 1992. Explain anyone. (b) Explain how the Khian Sea incident exposed weaknesses in global waste management systems. Which convention is made after this incident, explain it.	CO 2	3+3
Q2	(a) Draw a pie chart showing typical municipal waste composition. Suggest a waste segregation system using color-coded bins for a college campus. (b) Recommend a suitable waste treatment method for: - Organic waste - Plastic waste - Hazardous waste Draw a biogas reactor.	CO 2	3+3
Q3	(a) What are product-oriented standards in ISO 14000? Compare and contrast ISO 9000 and ISO 14000. (b) What is an Environmental Management System (EMS)? Explain its key components.	CO 4	4+2
Q4	(a) What are the main stages in the life cycle analysis? Explain them with a flow chart. (b) A company wants to compare plastic and paper packaging. How can LCA help in decision-making?	CO3	3+2
Q5	(a) What types of projects do not require EIA? Explain any one. What are the different types of EIA?	CO 3	3+3

	(b) A new highway project is proposed in a hilly area. Outline how EIA would be conducted for this project.		
Q6	(a) What is the LEED rating system? Evaluate the role of the building envelope in reducing heat gain. (b) What is meant by daylighting? How would you improve energy efficiency in an existing building?	CO 5	3+3

JUIT TEST-3 EXAMINATIONS- MAY-2026