

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
B.Tech Degree S4 (R) (FT/WP) Examinations April 2026 (2024 Scheme)



Course Code: UCHUT347

**Course Name: ENGINEERING ETHICS AND SUSTAINABLE
DEVELOPMENT**

Max. Marks: 50

Duration: 2 hours 30 minutes

PART A

(Answer all questions. Each question carries 3 marks)

		CO	Marks
1	Differentiate between personal ethics and professional ethics.	CO1	(3)
2	Explain the term environmental ethics. Why is it important?	CO2	(3)
3	Distinguish between 'linear economy' and 'circular economy'.	CO3	(3)
4	Outline three key sustainable water management practices that address both scarcity and pollution issues.	CO3	(3)
5	Identify three major impacts of the climate change specific to the natural systems and human systems of Kerala.	CO5	(3)
6	What are environmental policies? Give one example each for national and international agreements.	CO5	(3)

PART B

(Answer any one full question from each module, each question carries 8 marks)

Module -1

7	Compare and differentiate the concept of Data, Information, and Knowledge in the context of the digital revolution. How does Data, Information, and Knowledge influence ethical data management?	CO1	(8)
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- 8 Describe the root causes of Gender disparity and discrimination in education, employment, and everyday life. What is the role of Gender policy in reducing these issues? CO2 (8)

Module -2

- 9 a) Explain the concept of the triple bottom line. (5)
- b) What is Sustainability Metrics? Name any two key sustainability metrics. CO3 (3)
- 10 Explain the concept of sustainable engineering. What is the scope of Sustainable Engineering? How does its principles differ from traditional engineering approaches? CO3 (8)

Module -3

- 11 a) Explain about hydrology and water cycle. (4)
- b) How are human activities disrupting the natural water cycle, and what are the consequences? CO4 (4)
- 12 Define the concept of zero waste and its principles. How does the "reduce" principle differ from "recycling" in the context of material management? CO4 (8)

Module -4

- 13 List out the key challenges and opportunities in renewable energy adoption in developing economies like India. Which factor-technological, economic, or political presents the greatest barrier, and why? CO4 (8)
- 14 Describe the basics of global climate change, in context with the role of greenhouse gases and the observed impact on global temperatures. CO5 (8)
