

Reg No.: _____

Name: _____



APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
B.Tech Degree S3 (S) Examinations (FT/WP) May 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 | What is Collective Bargaining? What are the stages involved in collective bargaining? | CO1 | (3) |
| 2 | Differentiate between anthropocentrism and ecocentrism. | CO2 | (3) |
| 3 | Name three major threats to the ecosystems of Kerala. | CO3 | (3) |
| 4 | List three challenges in the adoption of renewable energy in India. | CO3 | (3) |
| 5 | What is the primary environmental advantage of Electric vehicle -Mobility? | CO5 | (3) |
| 6 | What is the role of an engineer in environmental policy compliance? | CO4 | (3) |

PART B

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

Module -1

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|---|--|-----|-----|
| 7 | Differentiate the basic concepts in Gender Studies (sex, gender, sexuality, gender spectrum), and explain how Gender stereotypes maintain Gender disparity and discrimination in education and employment. | CO2 | (8) |
| 8 | (a) How Personal Ethics differs from Professional Ethics? | CO1 | (5) |
| | (b) What is Civic Virtue? How it helps in reducing corruption? | | (3) |

Module -2

- 9 Explain the concept of Life Cycle Analysis (LCA) in detail. How Life Cycle Analysis helps in making efficient environmental engineering decisions? CO3 (8)
- 10 Explain the basic structure and functions of an ecosystem. Why the understanding of these functions is very important in environment conservation? CO3 (8)

Module -3

- 11 What is a circular economy model, and how does it differ from a traditional linear economy? What are the practical challenges of implementing a circular economy? CO4 (8)
- 12 Describe the impacts of conventional transportation systems on environment and climate. Mention and briefly describe any three sustainable urban mobility solutions that reduce environmental impact. CO4 (8)

Module -4

- 13 Compare the major renewable energy sources (solar, wind, hydro, biomass) in terms of their working principles, advantages, and limitations. CO5 (8)
- 14 Explain the reason behind climate change and the evidences for climate change. What is the impact of climate change on natural and human systems? CO5 (8)
