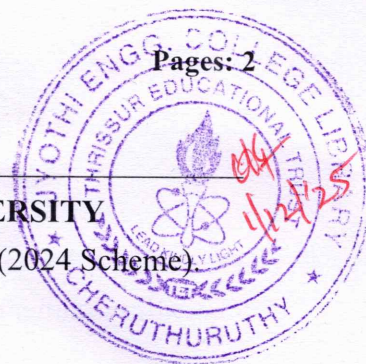


Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

B.Tech Degree S3 (R) (FT/WP) Examination November 2025 (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 | Plagiarism is an ethical concern in engineering. Explain | CO1 | (3) |
| 2 | What is gender spectrum? Give examples of gender identities on the spectrum. | CO2 | (3) |
| 3 | What is Sustainable engineering? Explain the three key dimensions. | CO3 | (3) |
| 4 | Define Bio diversity and explain the human impact on Biodiversity loss. | CO3 | (3) |
| 5 | Differentiate between Linear Economy and Circular Economy. | CO4 | (3) |
| 6 | What is the impact of climate change on natural and human systems | CO5 | (3) |

PART B*(Answer any one full question from each module, each question carries 8 marks)***Module -1**

- | | | | |
|---|--|-----|-----|
| 7 | Explain the difference between personal and professional ethics. | CO1 | (8) |
| 8 | a) Explain the term “gendered technology” with suitable examples. | CO2 | (5) |
| | b) With the help of suitable examples, explain the major contributions made by women in the field of Science and Technology. | CO2 | (3) |

Module -2

- | | | | | |
|----|----|---|-----|-----|
| 9 | a) | What is Environmental Ethics? Explain the key philosophical theories in Environmental Ethics. | CO3 | (8) |
| 10 | a) | Discuss the core elements of sustainable urban planning and green infrastructure? | CO3 | (5) |
| | b) | Define ecosystem. Mention any two ecosystems in Kerala? | CO3 | (3) |

Module -3

- | | | | | |
|----|----|---|-----|-----|
| 11 | a) | Devise a comprehensive waste management plan to transform your campus towards zero waste. | CO4 | (8) |
| 12 | a) | What are the impacts of modern transportation systems on environment and society? Can you suggest any urban mobility solutions? | CO4 | (8) |

Module -4

- | | | | | |
|----|----|--|-----|-----|
| 13 | a) | Explain the major environmental policies, regulations and agreements that operate at national and international levels to promote sustainable engineering. | CO5 | (4) |
| | b) | What are the three renewable energy sources? Discuss how renewable energy technologies can be scaled up in Kerala. | CO5 | (4) |
| 14 | a) | Discuss how an engineer can make cities and communities more climate-friendly? | CO5 | (4) |
| | b) | What are the emerging trends and future directions in environmental ethics and sustainability? | CO5 | (4) |
