

Code No: R204101Y

R20

SET - 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
IV B. Tech I Semester Advanced Supplementary Examinations March 2025

GREEN TECHNOLOGIES

(Open Elective)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) Discuss advantages and disadvantages of green technologies. [7M]
b) Analyze the principle of cleaner production and its various benefits? [7M]

(OR)

2. a) Explain the importance of green technology in detail. [7M]
b) Illustrate role of industrial ecology in green technology? [7M]

UNIT-II

3. a) Discuss various barriers of cleaner production process. [7M]
b) Describe Environmental feasibility analysis? [7M]

(OR)

4. a) Explain the terms i) reuse ii) recovery iii) recycle and iv) raw material substitution. [7M]
b) Describe cleaner production Financing in detail? [7M]

UNIT-III

5. a) Illustrate Cleaner Production Awareness Plan? [7M]
b) Describe Life Cycle Assessment with a neat diagram? [7M]

(OR)

6. a) Evaluate carbon credit and carbon sequestration? [7M]
b) Explain Eco Labelling in detail. [7M]

UNIT-IV

7. What are the major non-conventional energy resources in India? Discuss how important to utilize wind based and solar based energy with the associated principles. [14M]

(OR)

8. a) Write down the availability and need of conventional energy resources? [7M]
b) What are the solar energy conversion technologies and explain any one. [7M]

UNIT-V

9. Compare and contrast the green fuels with conventional fossil fuels with reference to the following aspects: [14M]
i) Environmental
ii) Economical
iii) Social impacts

(OR)

10. a) Write about the importance and challenges of green fuels? [7M]
b) Describe tidal and geothermal energy? [7M]
