

U.G. 4th Semester Examination - 2022

ENVIRONMENTAL SCIENCE

[HONOURS]

Generic Elective Course (GE)

Course Code : ENVS-H-GE-L-04

**(Green Chemistry, Green Technology and
Environmental Applications)**

Full Marks : 40

Time : $2\frac{1}{2}$ Hours

The figures in the right-hand margin indicate marks.

*Candidates are required to give their answers in
their own words as far as practicable.*

1. Answer any **five** of the following: $2 \times 5 = 10$

- a) What is green energy?
- b) What are 3R?
- c) Define the term LCA.
- d) What is meant by eco-mark?
- e) What is cap and trade concept?
- f) Define green belt.
- g) What is green nanotechnology?
- h) What is 'begin of pipe' approach?

2. Write short notes on any **two** of the following:

$5 \times 2 = 10$

- a) Green technology for a sustainable future
- b) Green building—Features and benefits
- c) Agro-forestry as a land management approach
- d) Fluidized bed combustion

3. Answer any **two** of the following: $10 \times 2 = 20$

- a) What is pit composting? How to make a compost pit? What are the benefits of pit composting method? $2+5+3$
- b) What is the difference between 'cradle to cradle' and 'cradle to grave' approach? How can a paradigm shift be made from 'cradle to grave' to 'cradle to cradle'? $4+6$
- c) Define solid waste. Classify solid wastes. Explain the functional elements of solid waste management (SWM). State the goals of integrated solid waste management. $1+4+3+2$
- d) What are the major challenges and their resolutions for implementation of green technologies? $5+5$

[Turn Over]