A-0867

Total Pages: 3 Roll No.

ENSE-655/EVS-604

CLEAN TECHNOLOGIES

M.Sc. Environmental Science (MSCES)

Examination, June 2025

Time: 2:00 Hrs. Max. Marks: 70

Note:— This paper is of Seventy (70) marks divided into two (02) Sections 'A' and 'B'. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section-A

Long Answer Type Questions $2 \times 19 = 38$

Note: Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each.

Learners are required to answer any two (02) questions only.

- Discuss the relationship between environment and technology.
- 2. Define Ex-situ remediation technology. Discuss about bioremediation of soil.
- 3. Describe the contaminated site management.
- 4. Give a detail account of sludge management with reference to sludge stabilization, hygienization and dewatering.
- 5. What do you understand by ecological sanitation? Describe the treatment process of human excreta.

Section-B

Short Answer Type Questions $4 \times 8 = 32$

- **Note**: Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.
- 1. Describe the concept of sustainable sanitation.
- 2. Differentiate between in-situ and ex-situ remediation.
- 3. Write about landfilling techniques in solid waste management.
- 4. Discuss the process reduction of CO₂ or carbon-dioxide in waste water treatment.
- 5. Give a note on "treatment of grey water"

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- 6. Describe about technology transfer, trade and development.
- 7. Discuss about physico-chemical remediation techniques for metal polluted water.
- 8. Give a note on slurry phase system.
