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Roll. No. :

Examination Session June-2022

(Fourth Semester)

ESC-608

M.Sc. Environment Science (MSCES-20)

**[Water and Waste Water Treatment
Technologies - II]**

Time : 2 Hours]

[Max. Marks : 40

Note : This paper is of Forty (40) marks divided into two (02) Section A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION—A

(Long-Answer-Type Questions)

Note : Section 'A' contains five (05) long-answer-type questions of Ten (10) marks each. Learners are required to answer any two (02) questions only. $2 \times 10 = 20$

1. Describe the characteristics of waste water. Explain suspended solids and dissolved oxygen in waste water.
2. What is Industrial Waste Treatment ? Explain Industrial Waste Treatment of any one Industry (Textile Industries / Pulp and Paper Mills).
3. What are the treatment processes ? Discuss about the characterization and degree of treatment.
4. What do you understand by Biological Waste Treatment ? Explain about the new concepts in Biological Waste Treatment with suitable example.

5. Differentiate between the anaerobic and aerobic digestion of sludge.

SECTION—B

(Short-Answer-Type Questions)

Note : Section 'B' contains eight (08) short-answer-type questions of Five (05) marks each. Learners are required to answer any four (04) questions only. $4 \times 5 = 20$

1. Write a brief note on Sludge treatment and disposal.
2. What do you understand by the low cost waste treatment ?
3. Write a short note on the Cleaner Technologies.
4. Briefly explain about the Industrial Waste Audit.
5. Discuss about the Conventional Biological Treatment.
6. Differentiate between primary and secondary treatment.
7. Write a brief note on the Sedimentation Tank.
8. Explain Oxygen requirement in Aerobic process.
