S-691

Total Pages: 3 Roll No.

ESC-603

Water and Waste Water Treatment Technologies-I

M.Sc. Environmental Science (MSCES)

3rd Semester Examination, 2022 (Dec.)

Time: 2 Hours] [Max. Marks: 35

Note: This paper is of Thirty Five (35) marks divided into two (02) Sections 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 Nine and Half (9½) marks each. Learners are required to answer any Two (02) questions only.

(2×9½=19)

1. What are the operations and maintenance of slow sand filters? Explain in detail.

- **2.** What is chlorination process? Discuss in detail.
- **3.** Discuss in detail about the analysis of sewage.
- **4.** Explain in detail about the process of sludge disposal.
- **5.** What is well? Describe the various types of wells in detail.

SECTION-B

(Short Answer Type Questions)

Note: Section 'B' contains Eight (08) short answer type questions of Four (04) marks each. Learners are required to answer any Four (04) questions only. (4×4=16)

- 1. Describe the physical test to know the water quality.
- **2.** Explain in detail about the design of rapid sand filter.
- 3. Discuss about the factors influencing the disinfection.
- **4.** Describe about the skimming tank in detail.
- **5.** Explain in detail about the procedure of solid waste management in small town.

- **6.** Write a brief account of spray aerators.
- **7.** What are cement concrete and RCC pipes? Discuss its advantages and disadvantages.
- **8.** Discuss about the washing of filter bed, wash water gutter and outlet.

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