## C946

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# **ESC-603**

## Water and Waste Water Treatment Technologies-I

M.Sc. Environmental Science (MSCES-20)

3rd Semester Examination, 2022 (June)

Time: 2 Hours] Max. Marks: 40

**Note:** This paper is of Forty (40) 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 Ten (10) marks each. Learners are required to answer any Two (02) questions only.

 $(2 \times 10 = 20)$ 

- **1.** Describe the various methods of conveyance of water.
- **2.** Describe different tests to understand the water quality.

- **3.** What is sedimentation? Explain sedimentation with coagulation and flocculation.
- **4.** What is filtration? Discuss the classification and types of filters.
- **5.** Explain the steps involve in solid waste disposal in municipalities.

#### **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.  $(4\times5=20)$ 

- **1.** Write a short notes on following :
  - (a) Springs.
  - (b) pH.
  - (c) Flocculators.
  - (d) Aeration.
- **2.** Write a brief account on air wash system.
- **3.** Describe the importance of sewage in brief.
- **4.** Discuss the applications of chlorine.

- **5.** Explain the chemical analysis of sewage.
- **6.** Explain about septic tank and disposal of its effluent.
- **7.** Describe different types of wells.
- **8.** Discuss the filter bed agitators in brief.