

**C934**

Total Pages : 3

Roll No. ....

**ES-553**

**Water and Waste water Treatment Technologies**

M.Sc. Environment Science (MSCES-19)

2nd Year Examination, 2022 (June)

**Time : 2 Hours]**

**Max. Marks : 80**

**Note :** This paper is of Eighty (80) 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 Twenty (20) marks each. Learners are required to answer any Two (02) questions only.

(2×20=40)

1. Write a detailed note on sedimentation.
2. Explain the primary and secondary sewage treatment in detail.

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**[P.T.O.]**

3. What do you understand by disinfection of water? Explain the various types and factors of disinfection.
4. Write a detailed note on removal of odour and colour from water.
5. What are the characteristics of industrial waste? Discuss industrial waste treatment of textile and paper-pulp industries.

### **SECTION-B**

#### **(Short Answer Type Questions)**

**Note :** Section 'B' contains Eight (08) short answer type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only. (4×10=40)

1. What are the different tests carried out to know the quality of water? Discuss in brief.
2. What is U-tube aeration system? Discuss its applications in brief.
3. What is chlorination? Discuss its process and importance.
4. Discuss the low cost waste treatment systems.
5. Explain the wastes generation from breweries, distilleries and tanneries.

6. Briefly discuss about septic tank, its advantages and disadvantages.
  7. Discuss toxic substances in industrial waste water.
  8. Briefly discuss about the water pollution and its impacts on environment.
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