

**TED (15/19) - 6012**  
(REVISION-2015/19)

150823019

Reg.No.....  
Signature.....

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER - 2023**

**ENVIRONMENTAL ENGINEERING**

(Maximum Marks:100)

(Time: 3 Hours)

**PART - A**  
( Maximum Mark : 10 )

**Marks**

I. Answer all the questions in one or two sentences. Each question carries 2 marks.

1. Differentiate between confined aquifer and unconfined aquifer.
2. List out various impurities in water.
3. Define coagulation.
4. Define refuse.
5. Define sludge digestion.

( 5 x 2 = 10 )

**PART - B**  
( Maximum Mark: 30 )

II Answer *any five* questions from the following. Each question carries 6 marks.

1. Explain with sketch infiltration gallery.
2. Explain the need of laboratory test of water.
3. List the requirements of a good disinfectant.
4. List the requirements of an ideal surface drain.
5. Explain the physical characteristics of sewage.
6. Explain the working of a trickling filter.
7. List the advantages and disadvantages of activated sludge process.

( 5 x 6 = 30 )

*P.T.O*

**PART – C**

(Maximum Mark: 60 )

(Answer **one full** question from each unit. Each full question carries 15 marks.)

**UNIT - I**

- III (a) Define spring. Explain the different types of springs. (8)  
(b) Explain the factors affecting percapita demand of water. (7)

**OR**

- IV (a) Explain the physical characteristics of water. (7)  
(b) Describe about the variations in percapita demand of water. (8)

**UNIT –II**

- V (a) List the factors to be considered for selection of location and layout of water treatment plant. (6)  
(b) Explain pressure filter with a neat sketch. Mention its merits and demerits. (9)

**OR**

- VI (a) Explain the types of sedimentation. (9)  
(b) Explain radial system of water distribution with a neat sketch. (6)

**UNIT – III**

- VII (a) List the classification of sewers according to the materials used.  
Explain any two of them. (7)  
(b) Discuss on conservancy system. List its advantages and disadvantages. (8)

**OR**

- VIII (a) List the objectives of sewerage works. (7)  
(b) Explain the working of drop manhole with a neat sketch. (8)

**UNIT – IV**

- IX (a) Define trap. Explain the classification of traps based on shape with sketches. (7)  
(b) State the functions of Pollution Control Board. (8)

**OR**

- X (a) Explain the working of imhoff tank with sketch. (8)  
(b) Differentiate between oxidation pond and oxidation ditches. (7)

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