TED (15) – 6012
(Revision – 2015)

N22 - 00767

Reg.No……..
Signature……...

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE – NOVEMBER – 2022

ENVIRONMENTAL ENGINEERING

(Maximum Marks : 100) (Time : 3 hours)

PART – A
(Maximum Marks : 10)

Marks

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

1. Define Drawdown.
2. Define the term air gap.
3. Distinguish between sewage and sullage.
4. Define dry weather flow.
5. List four rural sanitary latrines (5x2=10)

PART –B
(Maximum Marks : 30)

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

1. Explain the salient features of various surface sources.
2. Explain the various impurities of water.
3. Describe with sketch the river intake for collection of water.
4. State the causes and prevention of pipe corrosion.
5. Draw the sketch of a man-hole and explain its construction.
6. Explain the working of a skimming tank with a sketch.
7. How do you classify the traps depending on shape and how do they resemble.

(5x6=30)

PART – C
(Maximum Marks : 60)
(Answer **one full** question from each unit. Each full question carries 15 marks)

UNIT – I

III. (a) List the factors affecting per capita demand. (8)

(b) List the different types of wells according to the construction. Explain any two. (7)

OR

IV. (a) Estimate the future population of a town in 2021 by arithmetical increase and incremental increase method.

Year	1931	1941	1951	1961	1971	1981	1991
Population	350000	466000	994000	1560000	1623000	1839000	2430000

(8)

(b) Identify the variation in demand for water supply scheme for a town. (7)

UNIT – II

V. (a) Describe the construction and working of a pressure filter with a sketch. (7)

(b) Explain in detail the different forms and points of chlorination. (8)

OR

VI. (a) Explain with sketches different systems of distribution system. (8)

(b) Draw a neat sketch showing all the details of a water connection taken from the water main to the building. (7)

UNIT –III

VII. (a) Explain the different sewerage systems. (7)

(b) Draw the sketches of standard egg shape and new ovoid shape sewer and list any two merits and demerits. (8)

OR

VIII. (a) Explain the working of an automatic flushing tank with a sketch. (8)

(b) Explain the significance of BOD and pH value in sewage engineering. (7)

UNIT – IV

IX. (a) Explain Activated sludge process with a flow diagram. (7)

(b) Explain with sketch the disposal of sewage by Imhoff tank. (8)

OR

X. (a) State the principles of planning and design of house drainage. (7)

(b) Design a septic tank for a hostel of 200 students with a water supply of 100 lpcd. (8)

****