

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2020**

ENVIRONMENTAL ENGINEERING

[Maximum Marks: 100]

[Time: 3 Hours]

PART-A

[Maximum Marks: 10]

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

- I. 1. Define the term aquifer.
2. What is meant by yield of a well.
3. Name the classification of impurities.
4. Distinguish between sewage and sewer.
5. Explain the term self purification of natural waters. (5 x 2 = 10)

PART-B

[Maximum Marks: 30]

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

- II 1. List any six factors affecting per capita demand.
2. Explain various surface sources of water.
3. Explain (i) Reflux valve (ii) Sour valve (iii) Stop cock.
4. Explain the methods of aeration.
5. Write the advantages and disadvantages of water carriage system of refuse conveyance.
6. Explain with figure the classification of traps according to shape.
7. Explain anti-siphonage pipe. (5 x 6 = 30)

PART-C

[Maximum Marks: 60]

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

UNIT – I

- III (a) Explain with sketch the Infiltration gallery. (8)
(b) The census records of a city is, at Present...50000, Before one decade...47100, Before two decade...43500, Before three decade...41000. Workout the probable population after one, two and the three decade by Geometrical increase method. (7)

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OR

- IV (a) Draw the figure of canal intake and explain. (8)
(b) List the causes and prevention of pipe corrosion. (7)

UNIT – II

- V (a) Draw the figure of a Pressure filter and explain the working. (8)
(b) List the minor methods of disinfection. (7)

OR

- VI (a) Explain with sketches the different methods of layout of distribution pipes. (8)
(b) Name the different forms of chlorination. (7)

UNIT- III

- VII (a) Explain the different shapes of surface drains with sketches. (8)
(b) List the various materials used for sewers. (7)

OR

- VIII (a) Draw the figure of a drop manhole and explain. (8)
(b) List the various shapes of sewers. (7)

UNIT - IV

- IX (a) Draw the figure of a septic tank and explain. (8)
(b) Describe a bio-gas plant. (7)

OR

- X (a) Explain the effects of air pollution. (8)
(b) What are the functions of state pollution control board? (7)
