

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2018

ENVIRONMENTAL ENGINEERING

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

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

1. Define cone of depression.
2. Define Distribution pipe.
3. Define Garbage.
4. List the types of surface drains.
5. Define Grit chamber.

(5 × 2 = 10)

PART — B

(Maximum marks : 30)

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

1. Explain infiltration well with figure.
2. List the requirements of a good pipe joint.
3. State the objects of the tests on water samples.
4. Explain methods adopted for aerating water.
5. Explain the requirements of an ideal drain.
6. Explain activated sludge process.
7. Explain Flushing cistern with a figure.

(5 × 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 the factors affecting per capita demand. 8  
 (b) Explain Jackson turbidimeter with figure. 7

OR

- IV (a) Explain consumption for various demands. 8  
 (b) Explain two tests for determining yield of wells. 7

## UNIT — II

- V (a) List the requirements of a good coagulant. 8  
 (b) Explain the radial system of distribution and mention the advantages and disadvantages with sketch. 7

OR

- VI (a) Explain the working of a rapid sand filter with figure. 8  
 (b) List the various methods of disinfection. 7

## UNIT — III

- VII (a) Explain the disadvantages of conservancy system. 8  
 (b) Explain rectangular section of sewer with sketch and its merits and demerits. 7

OR

- VIII (a) Explain the physical characteristics of sewage. 8  
 (b) Explain catch basins with figure. 7

## UNIT — IV

- IX (a) Explain the advantages and disadvantages of oxidation ponds. 8  
 (b) Explain the natural source of air pollution. 7

OR

- X (a) Explain the construction and operation of a septic tank with figure. 8  
 (b) List the various methods of sludge disposal. 7