

TED (10)–4011

Reg. No. ....

(REVISION—2010)

Signature .....

FOURTH/SIXTH SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/  
TECHNOLOGY—MARCH, 2014

ENVIRONMENTAL ENGINEERING

(For IV Semester EN & WR and VI Semester CE and QS)

[Time : 3 hours

(Maximum marks : 100)

Marks

PART—A

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

1. Define an aquifer.
2. What is meant by super chlorination in water purification process ?
3. Differentiate garbage and sullage.
4. Define bio-chemical oxygen demand or BOD.
5. List the classification of screen according to condition of opening. (5x2=10)

PART—B

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

1. Explain the different methods of forecasting the future population of a town.
2. Describe the river intake with a neat sketch.
3. What is meant by plain sedimentation ? What are the factors affecting sedimentation ?
4. Explain the screens in treatment of sewage according to the condition of screens.
5. Describe the working of check or reflex valve with a neat sketch.
6. Explain physical characteristics of sewage.
7. Write any six merits of water carriage system. (5x6=30)

PART—C

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

UNIT – I

- III (a) Defferentiate gravity spring and artesian spring with a neat figure. 7
- (b) State any four advantages and disadvantages of reinforced cement concrete pipe for conveyance of water. 8

OR

|   | Marks |
|---|-------|
| IV (a) With a neat sketch explain simplex joint for the pipe joints.                  | 7     |
| (b) Explain the meaning of yield of well and mention the factors on which it depends. | 8     |

UNIT – II

|   |   |
|---|---|
| V (a) Explain the process of cleaning of a rapid sand filter. | 7 |
| (b) Explain the different systems of distribution of water.   | 8 |

OR

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|---|---|
| VI (a) Why are water meters installed on a pipe? Write any five requirements of good water meter. | 7 |
| (b) Explain the different forms of chlorination.  | 8 |

UNIT – III

|   |   |
|---|---|
| VII (a) Explain conservancy system of carrying refuse and any three merits of the system.     | 7 |
| (b) Define a drop manhole. What are its objects and how it is constructed with a neat figure? | 8 |

OR

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|--|---|
| VIII (a) State the necessity of pumping of sewage.                   | 7 |
| (b) Explain the section of shape of surface drains with neat sketch. | 8 |

UNIT – IV

|  |   |
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| IX (a) Define a trap. Explain Gully trap and intercepting trap with neat sketches. | 7 |
| (b) Describe the component parts of an imhoff tank by drawing a neat sketch.       | 8 |

OR

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|--|---|
| X (a) Draw a neat sketch of skimming tank and state the purpose of it. | 7 |
| (b) Explain the effect of air pollution on human health and animals.   | 8 |

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