

(DCE 312)

B.Tech. DEGREE EXAMINATION, MAY - 2015

(Examination at the end of Third Year)

CIVIL ENGINEERING

Paper - II : Environmental Engineering - I

Time : 3 Hours

Maximum Marks : 75

Answer question No.1 compulsory

(15)

Answer ONE question from each unit

(4 × 15 = 60)

- 1) a) What is the efficiency of RSF when compared to SSF?
- b) Distinguish between water quality objectives and water quality standards?
- c) What is jar test?
- d) What is the functions of a balancing reservoir?
- e) What is the method of analysis of total dissolved solids called?
- f) What is Indian Standard per capita water consumption?
- g) What are pressure filter?
- h) Define hardness of water.
- i) Define plumbing.
- j) What is the drinking water standard for fluorides?
- k) What is Residual chlorine?
- l) Mention the principle involved in sedimentation.
- m) What is the purpose of Booster pumps?

- n) What is fluorosis?
- o) Define house plumbing?

UNIT – I

- 2) a) Explain the role of environmental engineers?
- b) Describe factors affecting per capita consumption?

OR

- 3) a) Distinguish between surface water quality and ground water quality.
- b) Explain the methods of population forecasting.

UNIT - II

- 4) a) Explain the theory of sedimentation.
- b) What are the various methods of purification of water? Explain.

OR

- 5) a) How are pumps classified? Explain.
- b) Write in detail the determination of turbidity.

UNIT - III

- 6) a) Explain the methods of removal colour, odour and taste from water.
- b) Explain the methods of removing temporary and permanent hardness.

OR

- 7) a) Design slow sand filter for treating 2 MLD of water.
- b) What are the harmful effects of excess fluorides?

UNIT - IV

- 8) a) Explain the procedure of determine the capacity of a balancing reservoir?
- b) With neat sketches explain the appurtenances used in distribution system.

OR

- 9) a) Explain the one – pipe and two – pipe system of plumbing.
- b) Write a short notes on Sanitary fittings?

