

323

October 2023

Time - Three hours
(Maximum Marks: 100)

- (N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART - A

1. What are the demands for public water supply system?
2. How to test the pipe lines?
3. What are the causes of impurities of water?
4. What is the purpose of water softening? Name the various methods of removal of permanent hardness from water.
5. What are the methods of distribution?
6. Write about project report.
7. What are the principles of sanitation?
8. What are the types of sewage pumps?
9. What are the sources of soil pollution?
10. State any three limitations of EIA.

[Turn over.....

PART - B

11. (a) Explain the salient features and flowchart of a water supply scheme.
(Or)
(b) Explain about underground sources of water.
12. (a) What are the common impurities found in the natural source of water? Explain their causes and effects of water born diseases.
(Or)
(b) List out the methods of chlorination. Explain any four methods.
13. (a) Explain about general methods of distribution of water.
(Or)
(b) Explain about map and drawing to be prepared for water supply scheme.
14. (a) A catchment area of 20 sq.km consists of two-third rural and one-third urban area. The rainfall in the area is recorded as 25 mm/hr. Find the quantity of storm water in the area.
(Or)
(b) Explain about necessity of sewage pump and types of sewage pump.
15. (a) Explain about the various types of screens used in sewage treatment. How disposal of screenings are done?
(Or)
(b) Explain the methods of solid waste disposal method.
