

271**October 2017**

Time - Three hours
(Maximum Marks: 75)

- [N.B: (1) Q.No. 8 in PART - A and Q.No. 16 in PART - B are compulsory. Answer any FOUR questions from the remaining in each PART - A and PART - B.
(2) Answer division (a) or division (b) of each question in PART-C.
(3) Each question carries 2 marks in PART - A, 3 marks in Part - B and 10 marks in PART - C.]

PART - A

1. Mention the objectives of public water supply system.
2. Write down the Indian standard for the following impurities in drinking water: (i) Fluoride (ii) Chloride (iii) Lead (iv) Mercury.
3. Draw the flow diagram of water treatment plant.
4. Mention the demerits of intermittent system of supplying water.
5. What do you mean by sanitation and what are the systems of sanitation?
6. Distinguish manhole and lamp hole.
7. Differentiate reduction and reuse of solid waste.
8. Define the term greenhouse effect.

PART - B

9. Describe an infiltration gallery with a suitable sketch.
10. Explain the reverse osmosis process.
11. Explain the street inlet with suitable sketch.
12. Explain the terms ozone layer depletion and acid rain.
13. Define the term pipe corrosion and explain any two preventive methods.
14. Why we need ventilation of sewers? Explain any one method of ventilation.
15. Distinguish between primary and secondary treatment of waste water.
16. Write short notes on energy from waste.

PART - C

17. (a) Explain the river intake and canal intake with suitable sketches.
(Or)
(b) Explain the different bacteriological tests to test the suitability of drinking water.
18. (a) What do you mean by sedimentation? Explain any two types of sedimentation tanks with suitable sketches.
(Or)
(b) Explain the function of rapid sand filter with neat sketches.
19. (a) Explain the procedure for laying and testing of sewer lines.
(Or)
(b) Explain the drainage arrangements in buildings with necessary sketches.
20. (a) What do you mean by activated sludge? Explain in detail the activated sludge process.
(Or)
(b) Explain the different methods of solid waste disposal.
21. (a) Explain the air pollution control equipments with neat sketches.
(Or)
(b) Explain the different methodology of EIA.
-