

April 2018**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. Name any five methods used to forecast the population.
2. What is continuous system of supplying water?
3. What is circular system of distribution layout?
4. Define the term sewerage.
5. What is the necessity of cleaning of sewer?
6. Name the classification of solid waste.
7. What is meant by pollutants?
8. Mention the permissible limits of (a)pH value (b)Turbidity (c)Chlorides (d)Hardness.

PART - B

9. Mention any six factors which affect the percapita consumption.
10. Write short notes on cement concrete pipe.
11. State any three functions of service reservoir.
12. Write short notes on joints in sewer lines.
13. Draw the flow diagram of sewage treatment.
14. State any three preventive measures of water pollution.
15. What are the objects of environmental impact assessment?
16. Mention any six methods of solid waste disposal.

[Turn over.....

PART - C

17. (a) From the following population records, compute the probable population by arithmetical increase method in the years 2020, 2030 and 2040.

Year	:	1980	1990	2000	2010
Population	:	20000	31000	39000	49500

(Or)

- (b) Explain with neat sketch, reservoir intake.

18. (a) Compare slow sand filter with rapid sand filter.

(Or)

- (b) Explain about the various layouts of distribution.

19. (a) Compare conservancy system with water carriage system.

(Or)

- (b) Explain about drainage arrangements in buildings.

20. (a) Describe standard trickling filter with neat sketch.

(Or)

- (b) What are the methods of solid waste disposal? Explain any four methods.

21. (a) (i) What are the preventive measures of water pollution.
(ii) What is called green house effect? Give the remedial measures of green house effect.

(Or)

- (b) (i) State the limitations of EIA.
(ii) How the environmental impact statement is prepared?