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Register No.:		

April 2018

<u>Time - Three hours</u> (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?
- 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

185/598---1

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?

185/598-2