

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (CE) (2012 to 2017) (Sem.-5)
ENVIRONMENTAL ENGINEERING-I
Subject Code : BTCE-505
M.Code : 70516

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

Answer briefly :

1. Write a short note on hardness of water.
2. Define chlorination and fluoridation.
3. How slow sand filter differ from a rapid sand filter?
4. What are the causes for variations in water demand?
5. Write a short note on Aquifer.
6. Why drinking water should possess a high degree of purity?
7. Define population forecasting.
8. Discuss intermittent and continuous water supply.
9. What are the chemicals which are used as disinfectants?
10. What are indicator organisms?

SECTION-B

11. What are the different materials which are commonly used for the water supply pipes? Discuss their comparative merits and demerits.
12. Describe with a neat sketch the working of a pressure filter.
13. Compute the fire demand for a city having population of 140,000 using
 - (a) Kuichlings formula
 - (b) Bustons formula
14. Define Base Exchange process. How will you treat swimming pool water?
15. Draw a neat sketch of sedimentation tank in which coagulant is used and briefly explain the process.

SECTION-C

16. Write short notes on :
 - (a) Coli form Index and E-coli.
 - (b) Most Probable Number (M.P.N.)
17. What are the two major types of sources of water supplies? Discuss the comparative merits and demerits of both these types of sources.
18. Mention different types of pumps used in water works practice and explain their merits and demerits.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.