

PART – B (5 x 3= 15 Marks)

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| 6. | What are the methods of population forecasting? | CO1- U |
| 7. | How the corrosion of metal pipes is reduced? | CO1- U |
| 8. | Define: Sedimentation. | CO1- U |
| 9. | What are the methods of removing permanent hardness? | CO1- U |
| 10. | List the components of water distribution systems. | CO1- U |

PART – C (5 x 16= 80 Marks)

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| 11. | (a) Explain in detail about Public Water Supply System with a typical flow diagram of a Water Supply Scheme. | CO1- U | (16) |
| | Or | | |
| | (b) Write about the Classification of Sources of Water with neat sketches. | CO1- U | (16) |
| 12. | (a) Analyse the applications of River Intakes, Canal Intakes and Portable Intakes. | CO3- Ana | (16) |
| | Or | | |
| | (b) Analyse the different types of Pumps and Pipes used in Plumbing in terms of Water Supply. | CO3- Ana | (16) |
| 13. | (a) Develop the design for a rectangular sedimentation tank for 5MLD flow. | CO3- Ana | (16) |
| | Or | | |
| | (b) Develop the design of slow sand filter for a town of 30,000 population, the average daily demand being 135/ litres/head/day. The maximum demand may be taken as 1.5 times the average. | CO3- Ana | (16) |
| 14. | (a) Explain in detail about Aeration in Water Treatment. | CO1- U | (16) |
| | Or | | |
| | (b) Explain in details about Fluoridation and Defluoridisation. | CO1- U | (16) |
| 15. | (a) Explain in detail about the Requirements and Components of Water Distribution with suitable case example. | CO1- U | (16) |
| | Or | | |
| | (b) Explain the Plumbing Systems in a Building with Ground Floor with 2 upper floors with a neat sketch. | CO1- U | (16) |