

13. a)	Make use of suitable assumptions and design a suitable rectangular sedimentation tank for treating the sewage from a city provided with an assured public water supply system with max daily demand of 12 million liters per day. Assume suitable values of detention period and velocity of flow in the tank.	5	3	3	2
b)	Explain functions of Grit chamber in Sewage treatment plant.	3	2	3	1
14. a)	Develop Oxygen sag curve to explain various zones of pollution in rivers.	4	3	4	1
b)	Compare Activated sludge process and trickling filter.	4	4	4	6
15. a)	Explain primary and secondary air pollutants with suitable examples.	3	2	5	1
b)	Make use of suitable assumptions and design the dimensions of a septic tank for a small colony of 150 persons provided with an assured water supply from the municipal head works at a rate of 120 lpcd.	5	3	5	2
16. a)	Explain different types of water demand and what do you mean by Fire Demand.	4	2	1	1
b)	Distinguish between Slow sand filter with Rapid sand filter.	4	2	2	6
17.	Answer any <i>two</i> of the following:				
a)	Classify different types of Screens and its uses in STP.	4	2	3	7
b)	Explain principle of waste stabilization pond and oxidation ditch.	4	2	4	6
c)	Compare various solid waste disposal techniques.	4	2	5	1

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level – 1	20%
ii)	Blooms Taxonomy Level – 2	37.5%
iii)	Blooms Taxonomy Level – 3 & 4	42.5%
