BE Semester-VI (CIVIL) Question Bank

(Environmental Engineering -II)

All questions carry equal marks (10 marks)

Q.1	Explain different types of water demand
Q.2	Enlist different methods used for population forecast. Explain Any one in detail
Q.3	Explain river intake with neat sketch showing all the components
Q.4	Enlist the different types of pipes used for water supply. And explain cast iron Pipe in detail
Q.5	State the requirement of good disinfectant.
Q.6	What is optimum dose of coagulant? How it is determined?
Q.7	Define the following terms: (1) prechlorination (2) post chlorination (3) super chlorination (4) double chlorination (5) de chlorination
Q.8	Explain Lime soda process used for water softening
Q.9	Write a short note on rapid sand filter
Q.10	What is distribution system .State the function of the distribution system
Q.11	Write a short note on grid iron system
Q.12	How will you decide the capacity of elevated service reservoir
Q.13	Define the following terms: (1) Coagulant (2) BOD (3) COD (4) influent (5) Activated sludge
Q.14	Distinguish between separate sewerage system and combined sewerage system
Q.15	Write a short note on : (1)Brick sewer (2) Stone ware sewer pipes
Q.16	Calculate velocity of flow and corresponding discharge in circular sewer having diameter of 1m laid at a gradient of 1 in 400 . The sewer is running at 0.5m depth . Take N=0.012 in manning's formula
Q.17	A city has population of 50000 with an average rate of demand of 160 lpcd. Find area of rapid sand filter Also find numbers of units or beds required
Q.18	Design sedimentation tank for water works with supplies 1.6 MLD water to the town . The sedimentation period is 4 hrs . The velocity of flow is 0.15m/min and the depth of water in the tank is 4m. Assume an allowance for sludge as 80cm.Also find the overflow rate.
Q.19	Enlist various sewer appurtenances and write short note on any one.
Q.20	Discuss importance of manholes in sewerage system and describe with sketch deep manhole.
Q.21	Describe the procedure of design of pumps and rising main.
Q.22	Draw a neat sketch of clarifloculator and show its various parts.
Q.23	Explain the Activated Sludge process.
Q.24	Explain the sludge digestion process.
Q.25	Describe the methods of removal of hardness of water.
Q.26	Draw the neat sketch of Trickling filter and explain its design procedure.
Q.27	Explain daily variation of sewage flow. How will you estimate the wastewater discharge for design of a wastewater treatment plant.
Q.28	What is the Necessity of water supply scheme? Draw a complete flow diagram of water treatment plant.

Q.29	Draw a complete flow diagram of wastewater treatment plant and describe the function of its each unit.
Q.30	Explain the factors affecting site selection for intake structure.
Q.31	Write short note on “Septic Tank” and explain its design procedure.
Q.32	Write a Short note on “Break point Chlorination.”
Q.33	Design the dimensions of a septic tank for a small colony of 150 persons. The rate of water supply is 125 LPCD.
Q.34	Explain with sketch rotating biological contactors.
Q.35	Draw neat section of digester and describe its working.
Q.36	Describe steps for design of trickling filter.
Q.37	What is F/M ratio? What is its significance in ASP?
Q.38	Discuss operational problems in activated sludge process and suggest their remedies.
Q.39	Draw neat sketch of a rectangular sedimentation tank and explain its working.
Q.40	Write short note on (1) COD (2)Factors affecting sludge digestion.