

MAY 2017
(REVISED COURSE)
(3 Hours)

QP Code : 16962
[Total Marks : 80]

- N.B.: (1) Q.No.1 is compulsory
(2) Attempt any 3 out of remaining 5 question
(3) Draw the sketches if necessary.
1. Answer the following 20
- (a) Write a note on tertiary treatment of wastewater
 - (b) What is impact of BOD and pH in waste treatment
 - (c) Define settling velocity, surface loading, detention period.
 - (d) Explain ventilation of sewers
2. (a) Write a note on oxygen sag curve 6
- (b) Explain the construction and working of sludge digester 8
 - (c) Write a detailed note on crown corrosion 6
3. (a) The 5 day BOD of sewage sample is 170mg/l at 35°C. Calculate its 5 day 20°C BOD. Take $K_{20} = 0.1$. 6
- (b) What are the effects of particulate matter on human body? 6
 - (c) Design a septic tank for a 100 people. Assume data necessary and mention same. 8
4. (a) Determine the size of secondary and primary sedimentation tank for treating activated sludge of 10 mld flow 10
- (b) Explain operation and maintenance of trickling filter 6
 - (c) Define Noise. State the method to measure and prevent noise in building. 4
5. (a) What is activated sludge. Explain types of aeration system used in the treatment process. 8
- (b) Explain the working of sludge Drying Beds 6
 - (c) Write a short note on Aerated Lagoon. 6
6. (a) Explain types of sewers and sewer appurtenances 8
- (b) Explain working of grit chamber 6
 - (c) Write a note on Drop Manhole 6