

Code No: R1641011

R16

Set No. 1

IV B.Tech I Semester Advanced Supplementary Examinations, May - 2022

ENVIRONMENTAL ENGINEERING - II

(Civil Engineering)

Time: 3 hours

Max. Marks: 70

Question paper consists of Part-A and Part-B

Answer ALL sub questions from Part-A

Answer any FOUR questions from Part-B

PART-A (14 Marks)

1. a) What are the advantages of combined system? [2]
b) What are the disadvantages of one pipe system of plumbing? [2]
c) What is the principle of sedimentation? [2]
d) Write note on oxidation ponds. [3]
e) What are the disposal methods of septic tank effluent? [2]
f) What is the significance of oxygen sag curve? [3]

PART-B (4x14 = 56 Marks)

2. a) Explain in detail the classifications of sewerage systems. [7]
b) Explain the various steps involved in design of sewers. [7]
3. a) Describe the criteria for selection of site for pumping stations. What are the facilities required in the pumping station? [7]
b) Explain the different types of sanitary fittings. [7]
4. a) Explain in detail about the general characteristics, need for sampling and analysis of sewage. [7]
b) What is a Grit chamber? Describe with the help of neat sketch a horizontal flow grit chamber. [7]
5. a) Explain the working principle of standard rate trickling filters with neat sketch. [7]
b) Compare the aerobic and anaerobic treatment process. [7]
6. a) Explain in detail the working of UASB with neat sketch, its advantages and disadvantages. [7]
b) Write short notes on (i) FAB reactors, (ii) Membrane Reactors. [7]
7. a) Explain in detail sewage sickness and its remedial measures. [7]
b) Write the importance of sludge thickening in sludge management. Draw sludge thickener. [7]

