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R16

Code No: 138CU

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, July - 2021

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Time: 3 hours

Max. Marks: 75

Answer any Five Questions
All Questions Carry Equal Marks

AG 1. Describe the principles of screening and oil separation units used in waste water treatment. [15] A

2.a) What are the types of floatation systems and how does it work?

b) What are the advantages of Reverse osmosis process and where It is used? [10+5]

AG 3.a) What is the principle of operation and advantages of Chemical precipitation process? [8+7] A

b) Write about the inlet and settling zone of the sedimentation process.

AG 4.a) What is the significance of skimming tanks? [7+8] A

b) Explain in detail the coagulation mechanism process.

5. Explain in detail the design and the applications of Rotating Biological Contactors with suitable flow scheme. [15]

AG 6.a) Write a short note on High rate and Low rate Filters in terms of design features. A

b) What are the factors that influence the rate of substrate utilization within biofilm? [5+10]

7. Give in detail the design equation and material balance equation across the lagoon. [15]

8. Explain in detail the anaerobic sludge digestion process with a neat sketch. [15]

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