BE/CIVIL/SEM 8/CBSGS

Q.P. Code : 21642

[Time: Three Hours] [Marks:80]

24 MAY 2019

N.B:
1. Question.No.1 is compulsory.
2. Answer any three questions out of remaining five questions.
3. Assume suitable data wherever required
4. Figures to the right indicate full marks.

Q. 1 a) Explain effluent standards & stream standard. (20)
b) Is it necessary to treat industrial waste? Justify the answer.
c) Explain inplant control measures to reduce the strength of Industrial waste.
d) Write a note on EIA.

Q. 2
a) What is oxygen sag curve? With a neat figure explain the significance of it. (05)

b) A city discharges 100 cumecs of sewage in to a river, which is fully saturated with oxygen and flowing at a rate of 1500 cumes during its lean days with a velocity of 0.1m/sec. The 5 day BOD of sewage at a given temperature is 250 mg/lit. Find out when & where the critical DO deficit will occur in the downstream portion of the river & what is its amount. Assume coefficient of purification of stream (f) as 4 & coefficient of deoxygenation (K_D) as 0.1. [Assume other data required] (10)

c) What is equalization? Discuss the methods of equalization. (05)

Q. 3
a) Explain with a neat flow sheet manufacturing process of cotton cloth using cotton as raw material in the textile industry. (10)
b) Why Neutralization is required for the Industrial waste? Explain the various methods of neutralization. (10)

Q. 4
a) Explain the treatment given to the electroplating industry effluent with a neat flow sheet. Also discuss the importance of segregation in this industry effluent. (10)
b) What is environmental audit? What are the objectives of environmental audit? (05)
c) What is UASB? Explain in brief. (05)

Q. 5 Write a short note on (Any Four) (20)
1) Treatment of Sugar industry waste
2) CETP
3) Sludge drying beds
4) Good house keeping
5) Sampling of Industrial waste

Q. 6 a) Discuss the characteristics of dairy industry waste water. What treatment you suggest if the dairy effluent is to be disposed to (10)
1) inland surface water
2) Sewer

b) Explain the manufacturing process of leather in the tannery industry with neat flow sheet. (10)

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