Explain the following terms in detail:

Roll No. Total Pages: 3 38044 BT-8/D-19 INDUSTRIAL WASTE WATER TREATMENT Paper: CE-406E Time: Three Hours [Maximum Marks: 100 Note: Attempt five questions in all, selecting at least one question from each unit. Assume appropriate data wherever necessary. UNIT-I Explain the problems engaged with industrial sewage discharge in water stream. Discuss the term industrial wastes and write about its effects when not properly disposed. 10 Narate the effects of industrial work discharge on waste water treatment plants. 10 Differentiate between industrial sewage and municipal sewage and explain the effects if industrial sewage enters municipal sewage system. 10 UNIT-II Explain the effects of industrial effluents on wastewater 3. treatment plants. How can we minimize these effect? 15

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Volume reduction. Strength reduction. Neutralization. 20 Equalization. UNIT-III Explain the term population equivalent. Discuss 5. methods of calculation for population equivalent. 10 Write the industrial effluent standards for disposal into inland surface water for : Alkalinity. Hardness. (iii) pH. (iv) Fe. 10 (v) Lead (Pb). What are industrial standards. Discuss their unit in SI 5 system? (b) Give the industrial standards of following for disposal of wastewater on land for irrigation: Cyanide. (ii) T.D.S. 2 38044/1350/KD/1027

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Explain the term conservation of water.

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(iii)	Mn
(ш)	MI

(iv) Sulphate.

(v) Chlorides.

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UNIT-IV

- (a) Discuss the manufacturing process of textile industry with the help of flowsheet.
 - (b) Explain the quality parameters of distillary and its manufacturing process with the help of flow diagram.

10

- (a) What are radio active wastes? Explain the process of their disposal.
 - (b) Explain the preparation process of nitrogenous fertilizer and discuss about its waste generation. 10

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