



INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR

Mid-Spring Semester Examination, 2022

Subject : Hazardous Waste Technology and Management Subject No.: CH62050
Date: 22 .02.2022 (FN) Time: 1 Hrs (8:30 to 9: 30 Hrs) Full Marks: 20

Instructions: Video must be switched on during entire duration of exam, use A-4 Size Paper only. Write your name and Roll No on top of each page.

1. A Chloro-alkali industry having capacity of 300 TPD of alkali by electrolytic process. List the hazardous waste materials generated from this plant and list it as applicable as per HWM Regulations.

[6]

2. a) Explain with the help of flow charts how Zero Discharge concept can be applied for manufacture of aluminum from alumina ore which generates 20 m³/hr of wastewater with F- of 16 mg/L .
b) Show the management plan for holding F- bearing wastewater for 5 years of plant operations.

[6 + 6 = 12]

3. Explain the concept of Process change with five live examples to minimize generation of Hazardous Waste.

[2]

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