

Total number of printed pages-3

53 (FPT 501) FIWM

2021

**FOOD INDUSTRY WASTE  
MANAGEMENT**

Paper : FPT 501

Full Marks : 100

Time : Three hours



***The figures in the margin indicate  
full marks for the questions.***

1. (a) Name *any five* sub-sectors of food processing industry and enlist various kinds of wastes generated in those industries. 5
- (b) Write briefly on the various components of wastes in general. 9
- (c) Classify the wastes based on different categories and give examples for each of them. 6
2. (a) What is primary treatment of wastewater? Write about different processes. What is active sludge? Write the advantages and disadvantages of the activated sludge process. 3+3+4

Contd.

(b) The 5 days BOD at 200°C of a wastewater is 185gm/lit. What will be the ultimate BOD? What will be the 10 days demand? If the bottle had been incubated at 330°C, what would be the 5 days BOD? 10

3. (a) Explain Bio-filtration phenomenon of liquid industrial sewage. What is the controlling mechanism of a biofilter? 15

(b) How can Ion Exchange Treatment is successfully implemented in Effluent Treatment Technique? 5

4. Write short notes on the following :

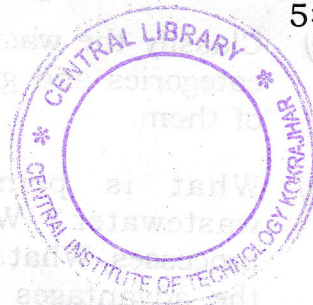
5×4=20

(a) Pyrolysis

(b) Incineration

(c) Gasification

(d) Anaerobic composting.



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5. (a) Discuss with principle the landfill bioreactor. What do you understand by landfill gas? 8+2
- (b) Describe the UASB reactor. What are the design criteria of UASB? 5+5

