

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
SEMESTER END THEORY EXAMINATION, B.Tech. (D.T.)

Semester : VIII (V Dean)
Course No. : DT- 812

Academic Year : 2021-2022
Course Title : Waste Disposal and
Pollution Abatement
Total Marks : 50
Time : 02.30 Hrs.

Credits : (1+1=2)
Day & Date : Wednesday, 08/06/2022

- Note :**
- 1) All questions from **Section 'A'** are compulsory.
 - 2) Solve **Any Three** questions from **Section 'B'**.
 - 3) Draw neat and well labeled diagram wherever necessary.

SECTION - 'A'

Q. 1 A) Choose the most appropriate answer from the options given below. (05)

- i) The organic waste water strength is measured in terms of
 - a) B.O.D
 - b) Total solids
 - c) Suspended solids
 - d) Milk solids
- ii) The biological methods used for treating the effluent are
 - a) Microfiltration
 - b) Trickling filters
 - c) Reverse osmosis
 - d) Sedimentation
- iii) The removal of fat from the effluent is done by
 - a) Equalization
 - b) Sedimentation
 - c) Sewage treatment
 - d) Air flotation
- iv) The milk solids from air emissions in the powder section can be minimized by
 - a) Condenser
 - b) Evaporator
 - c) Cyclones
 - d) Separators
- v) 100 kg of whey contains approximately kg of bio chemical oxygen demand.
 - a) 1.5
 - b) 3.5
 - c) 5.5
 - d) 4.5

B) Define the following. (05)

- i) Pollutant
- ii) Food contact surface
- iii) Waste Management
- iv) Soil erosion
- v) Dairy effluent

Q. 2 A) Give the full form of the following. (05)

- i) PFA
- ii) GMP
- iii) UASB
- iv) IBR act
- v) COD

(P.T.O.)

- B) Do as direct. (05)
- i) State the alkalinity of dairy effluent.
 - ii) What is the range of BOD of dairy effluent?
 - iii) List out peculiar characteristics of dairy waste.
 - iv) What is mean by sediment of suspended matter?
 - v) Enlist primary pollutants that contribute about 90 percent of air pollution.

SECTION - 'B'

- Q. 3 A) Discuss the types of wastes in a food processing plants in detail. (05)
B) Describe in detail aerobic treatment for dairy effluent. (05)
- Q. 4 A) What is air pollution? What are measures of preventing air pollution? (05)
B) With the help of suitable diagram illustrate the working of ETP for cheese and paneer section. (05)
- Q. 5 A) Discuss the products made by utilizing whey and give principle of utilization. (03)
B) States the packaging waste arise from fluid milk section and how will you minimize it. (03)
C) Discuss the causes of soil degradation in detail. (04)
- Q. 6 Write short notes on.
A) Personnel hygiene and plant hygiene. (03)
B) Waste utilization process. (03)
C) Various dairy by-products and their BOD values. (04)
- Q. 7 Describe in detail how dairy waste pollutant affect on environment. (10)
