

21U5109

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Name: .....

Reg.No: .....

**FIFTH SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2023**

(CBCSS - UG)

**CC21U SDC5 BU14 - BYPRODUCT UTILISATION AND WASTE MANAGEMENT**

(Food Processing Technology)

(2021 Admission - Regular)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 2

**Part A** (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. List the importance of effluent treatment.
2. Define BOD.
3. Define the significance of metal contents in waste water.
4. List the types of microorganisms present in waste water.
5. List out the characteristics of the byproducts from cereals.
6. Identify the utilisations of byproducts from pulses.
7. Identify the utilisations of byproducts from oil seeds.
8. Name the byproducts from fruits.
9. Name the byproducts from vegetables.
10. List out the characteristics of the byproducts from plantation crops.
11. Name the byproducts from fish.
12. List out the characteristics of the byproducts from poultry.

**(Ceiling: 20 Marks)**

**Part B** (Short essay questions - Paragraph)

Answer *all* questions. Each question carries 5 marks.

13. Write about waste characterisation.
14. Write about FOG.
15. Write about coagulation.
16. Briefly explain about the treatment levels in waste water treatment.
17. Write about casein and caseinates.

18. Write about the hatchery waste and applications of egg shell.

19. Write about gelatin from meat industry.

**(Ceiling: 30 Marks)**

**Part C (Essay questions)**

Answer any *one* question. The question carries 10 marks.

20. Explain about Scope and importance of waste management and effluent treatment.

21. Write in detail about Pretreatment of waste: sedimentation, coagulation, flocculation and floatation  
Secondary treatments: Biological oxidation trickling filters, activated sludge process.

**(1 × 10 = 10 Marks)**

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