

19U5102

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Name:

Reg. No.....

FIFTH SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2021

(Regular/Supplementary/Improvement)

CC18U SDC5 BU25 - BYPRODUCT UTILIZATION AND WASTE MANAGEMENT

(Food Processing Technology)

(2018 Admission onwards)

Time: Three Hours

Maximum: 80 Marks

Section A

Answer *all* questions. Each question carries 1 mark.

1. Enlist two wastes from fruits and vegetable processing industry.
2. Which are the food processing industries that produces least waste?
3. Enlist the forms in which Sulphur is present in waste water.
4. Name two pathogens present in sewage.
5. Which are the treatment levels in ETP?
6. Trickling filters are part of _____ in nature.
7. What is the major industrial use of barley?
8. Pomace are the byproduct of which industry?
9. Name a use of egg shells.
10. Name use of fish skin.

(10 × 1 = 10 Marks)

Section B

Answer any *eight* questions. Each question carries 2 marks.

11. Define waste.
12. Define byproduct.
13. What is BOD?
14. How can be COD estimated?
15. What is flocculation?
16. Define activated sludge.
17. What comes under tertiary treatment?
18. Comment on fish protein concentrate.
19. Comment on canola meal.
20. Enlist the uses of bone meal.
21. Outline the making of blood meal.
22. Relation between dissolved oxygen and micro-organism.

(8 × 2 = 16 Marks)

Section C

Answer any *six* questions. Each question carries 4 marks.

23. Comment on different types of waste and their sources.
24. What are the criteria of waste water characterization?
25. Write about the different types of oxygen demands and methods to analyse them.
26. What are the components of primary treatment? Explain.
27. What are trickling filters. Elaborate.
28. Write about the byproducts from any two cereals.
29. Comment on the byproducts of breweries and their uses.
30. What are the byproducts of dairy industry? Elaborate.
31. How is characterization of byproducts from agro industries done? Elaborate.

(6 × 4 = 24 Marks)

Section D

Answer any *two* questions. Each question carries 15 marks.

32. Explain in detail industrial waste water treatment.
33. Write about chemical components in wastes.
34. Write about the byproducts and their utilization from various fruits and vegetables.
35. Categorize and explain byproducts from animal food processing industries.

(2 × 15 = 30 Marks)
