

22U352

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Name:

Reg.No:

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2023

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U FTL3 B05 - FOOD ENGINEERING

(Food Technology - Core Course)

(2019 Admission onwards)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 3

Part A (Short answer questions)

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

1. Write names of physical properties of food materials.
2. How to calculate apparent viscosity?
3. Write names of any five unit operation in food engineering.
4. Define frying.
5. Define freezing rate.
6. Differentiate direct contact and indirect contact freezing equipment.
7. Name any two cryogenes used in cryogenic freezing.
8. Define evaporation.
9. Differentiate rising film and falling film evaporator.
10. Write any two disadvantages of freeze drying.
11. Briefly note the applications of shell and tube heat exchangers.
12. Define pasteurization.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

13. Describe non-newtonian fluid? Give one example.
14. Explain different methods of drying and brief anyone.
15. Explain working of cabinet dryer with a neat sketch.
16. Describe the principle involved in spray dryer with a neat sketch.

17. What are the applications of heat conduction in food processing?
18. Describe a scrapped surface heat exchanger and what are its special features?
19. Write briefly about working of water tube boiler.

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. What do you mean by refrigeration? Explain briefly refrigeration cycle. Write applications of refrigeration.
21. What is heat exchanger? Explain in detail about classification of heat exchanger with neat sketch.

(1 × 10 = 10 Marks)
