

TB246560W

Reg. No : .....

Name : .....

BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2024  
2021 ADMISSIONS REGULAR  
SEMESTER VI - SKILL (B. VOC FOOD PROCESSING TECHNOLOGY )  
VFPT6S16B18 - Unit Operations in Food Industry

Time : 3 Hours

Maximum Marks : 80

**Part A**

**I. Answer any Ten questions. Each question carries 2 marks**

**(10x2=20)**

1. Define Stefan's Boltzmann law.
2. Write the expression for Fourier's law of heat conduction.
3. Write the expression for Newton's law of cooling.
4. Cite the term food evaporation.
5. Define single effect evaporator.
6. List out the crystallizers used in food industry.
7. Define crystallization.
8. Define leaching.
9. What is a single screw extruder?
10. Define single stage batch processing.
11. Define pneumatic conveyor.
12. Write the equation to calculate power and capacity of screw conveyor.

**Part B**

**II. Answer any Six questions. Each question carries 5 marks**

**(6x5=30)**

13. Explain with neat diagram scraped surface heat exchanger.
14. Describe the working of plate heat exchanger.
15. Describe forced circulation evaporator.
16. Summarise on multiple effect reverse feed evaporator with neat diagram.
17. Write short notes on scraped surface crystalliser.
18. Illustrate in detail the working of tank crystalliser.
19. Write short notes on single screw extruder.
20. Explain the applications of extrusion.
21. Discuss the working of screw conveyor.

**Part C**

**III. Answer any Two questions. Each question carries 15 marks**

**(2x15=30)**

22. Describe in detail multiple effect evaporator with neat diagram.
23. Describe in detail the types of distillation equipments used in food industry.
24. Explain in detail liquid-liquid extraction equipments.
25. Describe with neat diagram the equipments for sedimentation.

