20U352 (Pages: 2) Name: .....

Reg.No: .....

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

(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. Differenciate newtonian and non newtonian fluids.
3. Define freezing and what are the advantages of freezing.
4. What is refrigeration?
5. What is cryogenic freezing?
6. Write the name of various components of a single effect evaporator.
7. Write any two advantages of drum dring.
8. What is fluidized bed drier?
9. Define conductors.
10. Write a note on general classification of heat exchangers.
11. Give a note on flash pasteurization.
12. Write any two advantages of fire tube boiler.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

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

13. Write about vapour compression refrigeration system with neat diagram.

14. Write briefly about blanching and drying with examples.

15. Write a short note on fire tube and water tube boilers.

16. Explain single effect and multiple effect evaporator with neat diagram.

17. Describe a raising film evaporator with a neat diagram.

18. Draw a neat sketch and describe the working principle of spray dryer and give its industrial applications.

19. Explain shell and tube heat exchanger with a neat diagram.

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. Draw a typical drying rate curve and explain different components of it. Draw a neat sketch and describe the function of double drum drier. How this drier is is better than single drum drier.

21. Explain with a neat sketch working of Plate heat exchanger. Give its industrial applications.

(1 × 10 = 10 Marks)

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