

19U352

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Name :

Reg.No:

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2020

(CBCSS - UG)

CC19U FTL3 B05 - FOOD ENGINEERING

(Food Technology - Core Course)

(2019 Admission - Regular)

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. Applications of rheological properties in food engineering?
3. Name any five drying methods used in food industries?
4. Define frying?
5. What is the use of condenser in the refrigeration cycle?
6. Differentiate direct contact and indirect contact freezing equipment?
7. What is cryogenic freezing?
8. Differentiate horizontal tube and vertical tube evaporator?
9. Differentiate rising film and falling film evaporator?
10. What is the principle behind freeze drying?
11. Write a note on general classification of heat exchangers?
12. What is called fouling effect in heat exchangers?

(Ceiling: 20 Marks)

Part B (Short essay questions)

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

13. What are the different non- newtonian fluids? Explain with suitable examples?

14. Explain different methods of drying and brief anyone?
15. Explain working of cabinet dryer with a neat sketch?
16. Explain working principle of spray dryer with a neat sketch?
17. Explain about modes of heat transfer. Give its industrial applications?
18. Explain UHT milk of pasteurization?
19. Write briefly about working of water tube boiler?

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. What are the applications of freezing in food processing ?. With the help of a neat sketch explain the working of air blast freezer. What are its limitations and advantages
21. Explain the classification of heat exchangers. With the help of a neat sketch explain the functioning of shell and tube heat exchanger. Give its industrial applications?

(1 × 10 = 10 Marks)
