22U468 (Pages: 2) Name: .....

Reg.No: .....

FOURTH SEMESTER B.Voc. DEGREE EXAMINATION, APRIL 2024

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC21U SDC4 FE12 - FOOD ENGINEERING

(Food Processing Technology - Skill Component Course)

(2021 Admission onwards)

Time : 2.5 Hours Maximum : 80 Marks

Credit : 4

Part A (Short answer questions)

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

1. Define angle of repose of food materials.
2. What is Specific heat?
3. Write about air comparison pycnometer.
4. Comment about Newtoninan liquids.
5. Differenciate newtonian and non newtonian fluids.
6. What is viscosity?
7. What are the basic components of mechanical refrigeration system?
8. Write any five properties of refrigerant.
9. What is cryogenic freezing?
10. Write the name of various components of a single effect evaporator.
11. What are the importance of drying?
12. What is fluidized bed drier?
13. Define insulators.
14. Write a note on general classification of heat exchangers.
15. Note down the applications of shell and tube heat exchangers.

(Ceiling: 25 Marks)

Part B (Paragraph questions)

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

16. Differentiate quick freezing and slow freezing.

17. Explain working of falling film evaporater.
18. What is constant rate period? Represent with the help of a graph.
19. Explain different methods of drying and breif anyone.
20. Write briefly about radiation mode of heat transfer.
21. What are the applications of a heat exchanger? Write about plate heat exchanager.
22. What are the components in a pasteruiser?
23. Explain working of fire tube boiler.

(Ceiling: 35 Marks)

Part C (Essay questions)

Answer any ***two*** questions. Each question carries 10 marks.

24. Write about any two types of evaporator with a neat diagram.
25. Discuss about any three driers in the food industry.
26. With a neat sketch describe the working of HTST pasteurizer. Give merits and demerits of this process.
27. Explain fire tube and water tube boiler with figures.

(2 × 10 = 20 Marks)

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