

**FOURTH SEMESTER B.Voc. DEGREE EXAMINATION, APRIL 2026**

(CBCSS - UG)

(Regular/Supplementary/Improvement)

**CC21USDC4FE12 - 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. Write names of physical properties of food materials?
2. What is Specific heat?
3. What is Porosity?
4. What are the states of matter?
5. What is meant by non newtonian fluids?
6. What is non hooken foods?
7. Mention any five applications of refrigeration in food industries.
8. Define air blast freezers.
9. Write the main advantages of cryogenic freezers.
10. Define evaporation and mention its applications.
11. What is tunnel drier?
12. Write any two advantages of freeze drying.
13. What are the modes of heat transfer?
14. Note down the applications of plate heat exchangers.
15. Write any two objectives of pasteurization.

**(Ceiling: 25 Marks)****Part B** (Paragraph questions)Answer *all* questions. Each question carries 5 marks.

16. Explain the role of compressor in a refrigeration system.
17. Draw the sketches of falling film evaporator.

18. Draw the curve showing the drying.
19. Write a note on sun drying.
20. Write briefly about radiation mode of heat transfer.
21. Account on different classification of heat exchangers.
22. Explain UHT pasteurization of milk.
23. Explain working of fire tube boiler.

**(Ceiling: 35 Marks)**

**Part C** (Essay questions)

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

24. Discuss about the different types of Evaporators.
25. What is drying? Explain in detail about fluidized bed dryer, drum dryer and tunnel dryer with neat sketch.
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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