B.Sc. Degree (CBCSS) Examination
Second Semester
Faculty of Science
Branch: Food Technology and Quality Assurance
FT2CRT01- FOOD ENGINEERING

Time: 3hoursMaximum marks: 80

PART-A (Answer any 10)   10x2 =20 marks

(Short Answer/Problem type)

1. Reynold's Number

2. Distinguish between Laminar and Tubular flow

3. Extensive properties

4. Freeze Concentration

5. Reverse Osmosis

6. Fluidized bed dryer

7. Venturemeter

8. Thermal conductivity and Thermal Diffusivity

9. Derived units

10. Cryogenic freezing

11. Specific heat

12. Fourier's Law

PART-B (Answer any 6)   6x5 =30 marks

(Short Essay/Problem type)

13. Describe the types of mixers used in food industry

14. Explain the modes of heat transfer

15. Describe ultrafiltration and microfiltration

16. Write a note on different types of centrifugation

17. Explain the role of insulation in reducing heat from process equipment with a suitable example

18. Elaborate on instruments used in flow measurement and types of pumps used.

19. Draw and explain the phase diagram of water

20. Give a brief account of various engineering units

21. Explain drying curve and enlist the changes during drying

PART-C (Answer any 2)   **2x15 =30 marks**

(Essay/Problem type)

22. Enumerate the heating and cooling systems used in food industry with the help of neat diagrams

23. (a) Describe Freezing curve and explain the changes during freezing (b) Give a brief account on types of freezers

24. Describe different types of equipment used in evaporation and clarification with suitable diagram

25. Explain different types of filtration and distillation