

**THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2020**

Food Technology

FTL 3B 05—FOOD ENGINEERING

Time : Two Hours

Maximum : 60 Marks

Section A

*Answer at least **eight** questions.*

Each question carries 3 marks.

All questions can be attended.

Overall Ceiling 24.

1. What is the function of an atomizer in spray drier ?
2. Brief on rheoectic and thixotropic fluids.
3. What is foam mat drying ?
4. What are different methods of pasteurization ?
5. What is the principles microwave heating ?
6. What are different types of boiler ?
7. What is cryogenic freezing ?
8. What are the types of evaporator ?
9. What are the major applications of heat exchangers ?
10. Define storage modulus and lose modulus ?
11. What is the function of a condenser in refrigeration ?
12. What are Newtonian fluids ?

(8 × 3 = 24 marks)

Turn over

Section B

*Answer at least **five** questions.*

Each question carries 5 marks.

All questions can be attended.

Overall Ceiling 25.

13. What are the classification of fluids based on the response to applied shear force ?
14. Explain different method of blanching and the purpose of blanching in vegetables.
15. Compare and contrast direct contact and indirect contact freezing.
16. With the help of diagram explain working of falling film evaporator, and its application.
17. Write a short note on working of spray dryer.
18. Explain different modes of heat transfer.
19. Describe in brief the major parts of a boiler.

(5 × 5 = 25 marks)

Section C

*Answer any **one** question.*

Each question carries 11 marks.

20. With the help of neat diagram explain different refrigeration systems and their applications.
21. Explain the working of shell and tube heat exchangers. What are their applications and demerits?

(1 × 11 = 11 marks)