QP CODE: 21101192

Reg No : ....

Name : ....

B.Sc DEGREE (CBCS) EXAMINATION, APRIL 2021

Sixth Semester

B.Sc Food Science & Quality Control Model III

Choice Based Core Course - FS6CBT27 - BASIC FOOD ENGINEERING

2017 Admission Onwards

2C528DB4

Time: 3 Hours

Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Define Coulomb.

2. Differentiate between rotary pump and reciprocating pump.

3. Define Reynolds Number with equation.

4. What is static pressure in fluid flow measurement?

5. Name the heat exchanger suitable for production of tonned milk and tomato paste. Give the reason.

6. Differentiate between Steady state and unsteady-state heat transfer.

7. What is solvent extraction?

8. Classify single screw extruders.

9. Define membrane separation. List out different types of membrane systems.

10. Define electrodialysis system. Write the equation for energy consumtion.

11. Discuss about ultrafilteration.

12. Define quick freezing. List out the advantages.

Part B

Answer any six questions.

Each question carries 5 marks.

13. Derive equations of motion.

14. Explain properties of liquids.

15. Explain thermal properties of food.

16. Explain radiative heat transfer.

17. Explain the working of disc bowl centrifuge with diagram.

18. Explain any two centrifugal filters.

19. Explain the mixers suitable for low or medium viscosity foods.

20. Explain the theory of size reduction of solid foods.

21. Describe the working of tray dryer with neat diagram.

(6×5=30)

Part C

Answer any two questions.

Each question carries 15 marks.

22. Derive equation for velocity profile in liquid flowing under fully developed flow condition for laminar flow.

23. Classify heat exchanger and explain different heat exchangers with diagram.

24. Explain differen components of a refrigeration system.

25. Explain in detail about different types of evaporators used to obtain concentrated liquid products.

(2×15=30)