

Roll No.....

B.Tech Food Technology
Semester IV Examination, 2019
Paper Title: Food Process Modelling
Paper Code: BFTC – 603

B.Tech
2019
6th Sem.

Time: 3 Hours

Max Marks: 70

It is compulsory to answer all the questions of Section-A
Answer any four question in Section-B

Section-A (5X6=30)

- Q1.** What is the main purpose of each branch of Food Science and Technology to Food Process Design? This includes conventional processes, minimal processing, nonthermal processing, etc. (6)
- Q2.** Discuss the chemical aspects of Food Science of importance to food process design. (6)
- Q3.** How would you judge the performance of a mixer in solid mixing? Explain. (6)
- Q4.** Enlist the design, operating and performance parameters of Plate Heat Exchanger. (6)
- Q5.** Discuss the microbial aspects of Food Science of importance to food process design. (6)

Section B (4X10=40)

- Q1.** Discuss the modeling of size reduction and particle size analysis. (10)
- Q2.** Explain the process of high pressure homogenization of milk. (10)
- Q3.** Discuss the process modeling of single screw extruder with a neat diagram. (10)
- Q4.** Explain the kinetics of microbial inactivation in In-bottle sterilization. (10)
- Q5.** Derive the equation for maximum water loss and sucrose gain in osmo-concentration of fruit solid.
- Q6.** What is the importance of shelf-life prediction in flexible packaging? Discuss. (10)

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