

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Fifth semester B.Tech degree examinations (S) September 2020

Course Code: FT305**Course Name: FOOD PROCESS ENGINEERING**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer any two full questions, each question carries 15 marks.*

Marks

- 1 a) Diagrammatically explain different cleaning methods in the presence of moisture for food processing. (10)
- b) Describe F, D and Z values with an example. (5)
- 2 a) What is meant by LTLT pasteurization and how are they done? (7.5)
- b) Explain the construction, working of a homogenizer and its application in size reduction. (7.5)
- 3 a) Distinguish between Kick's law and Rittinger's law of size reduction. (5)
- b) Explain working of any five equipments used for size reduction of dry foods. (10)

PART B*Answer any two full questions, each question carries 15marks.*

- 4 a) Elaborate the principle and working of spray drier. (10)
- b) What are the different methods available for measuring the moisture content of the given food? (5)
- 5 a) What are the different properties of air (with units) shown in a psychrometric chart? (8)
- b) Explain different types of frying and its importance in food industry. (7)
- 6 a) Explain the physiochemical changes happening during frying process. (5)
- b) Elaborate on the baking process carried out in food industry. (10)

PART C*Answer any two full questions, each question carries 20 marks.*

- 7 a) Explain the prediction of freezing time by Planks method. (10)
- b) What is the significant role of thawing in food industry? (5)
- c) What is COP and cooling load? (5)

- 8 a) Distinguish between VA and VC refrigeration systems. (10)
b) Elucidate the effects of RF heating in food processing. (10)
- 9 a) Explain the influence of ultrasound technology in food Industry. (10)
b) What are the important ways in which hurdle technology influence food industry? (10)

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