

**M. Tech. –IV (Chemical Engineering) (CBCS – 2015 Course) :
SUMMER - 2019**

SUBJECT: SELF-STUDY PAPER-II FOOD TECHNOLOGY

Day: Thursday
Date: 13/06/2019

Time: 11.00 AM TO 02.00 PM
Max. Marks: 60

S-2019-3583

N.B:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answer to both the sections should be written in **SAME** Answer book.
- 4) Assume suitable data, if necessary.

SECTION-I

Q.1 Explain heat transfer by conduction, convection and radiation. Also explain thermal death time for food processing. **(10)**

OR

Q.1 What is Rheology? Explain rheology of solid, semi- solid and liquid foods with suitable example. **(10)**

Q.2 What is food sterilization? Explain heat sterilization process to determine the time of heat sterilization with suitable example. **(10)**

OR

Q.2 Explain in detail conductive and convective foods. **(10)**

Q.3 Explain in detail balancing and freezing of foods with suitable example. **(10)**

OR

Q.3 What is convective drying of food? Explain in detail with example. **(10)**

SECTION-II

Q.4 What is membrane processing? Explain principle and membrane configurations for processing of liquid food. **(10)**

OR

Q.4 Explain various types of evaporators used for processing of liquid foods. **(10)**

Q.5 What is osmotic dehydration of food? Explain in detail the mechanism of osmotic dehydration of food. **(10)**

OR

Q.5 What is frying of food? Explain heat and mass transfer in frying. **(10)**

Q.6 Why food moisture analysis is important? Explain role of moisture content in food. **(10)**

OR

Q.6 What is extrusion cooking of food? Explain in detail extrusion process for food. **(10)**

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