

M. Tech. –III (Chemical Engineering) (CBCS – 2015 Course) :

WINTER - 2018

SUBJECT : ELECTIVE – II: FOOD PROCESS ENGINEERING

Day : Thursday
Date : 06/12/2018

W-2018-3306

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

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Answers to both the sections should be written in **SEPARATE** answer book.
-

SECTION – I

Q.1 Discuss the role of chemical engineering in food processing industry. **[10]**

OR

Describe the physical and functional characteristics of food material.

Q.2 Illustrate “Pasteurization Process” and give its significance. **[10]**

OR

Define and discuss the following terms:

- a) Hydrostatic pressure cooling
- b) Microwave processing

Q.3 Describe the design consideration for different types of dryers used in food process industries. **[10]**

OR

Illustrate “Drying Mechanism” and describe the following terms:

- a) Constant rate period
- b) Falling rate period

SECTION – II

Q.4 Describe various methods used for food conservation. **[10]**

OR

Illustrate the food conservation operation for dry foods and liquid foods.

Q.5 Discuss the design parameters from screw conveyer. **[10]**

OR

Describe the design procedure for belt conveyer.

Q.6 Write short notes on: **[10]**

- a) Chemical preservatives
- b) Thermal death time curve

OR

Write short notes on:

- a) Natural method for food preservation
- b) Dehydration of food material

* * * *
