**Roll No.** | | | | | | | | | | | | | **Total No. of Pages : 02**

**Total No. of Questions : 09**

**B.Tech. (Food Technology) (Sem.–7)**

# ADVANCE TECHNIQUES IN FOOD PROCESSING

**Subject Code : BTFT 702**

**M.Code : 90965**

**Date of Examination : 08-07-22**

**Time : 3 Hrs.** **Max. Marks : 60**

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

## SECTION-A

**1. Write briefly :**

a) Enlist different thermal techniques for food preservation.

b) Define the term *'Microencapsulation'*.

c) What are the various types of radiations used for food preservation?

d) Write down the effect of high-pressure processing on bacterial spores.

e) What do you understand by the term *'Smart Packaging'*?

f) Describe the principle of dielectric heating.

g) What is the role of image processing in food industry?

h) Write down the principle of *'hurdle effect*'.

i) What is the operating pressure and limit particle size range of *'reverse osmosis'*?

j) Name any two polymers that are used to make commercial membranes.

## SECTION-B

2. Define food irradiation method. Write short note on the applications of irradiation on food products.

3. What are non-thermal techniques? Give examples. Discuss the advantages and disadvantages of non-thermal techniques over thermal techniques.

4. Write short note on the principle and applications of dielectric heating in food sector.

5. Discuss in detail the advances made in the field of food processing and preservation along with suitable examples.

6. Describe the theory and effect of intense light pulses on microorganisms and foods.

## SECTION-C

7. What is super critical fluid extraction technique? Discuss in detail the principle, methodology and applications of super critical fluid extraction technique in food sector.

8. Write short notes on :

   a) Computerization in food industry

   b) Elecrodialysis.

9. What are membrane-based separation techniques? Discuss in detail the principle, working and applications of ultra-filtration in detail.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student**.