

**BE (FTBE) 3<sup>RD</sup> YEAR 2<sup>ND</sup> SEMESTER SUPPLEMENTARY EXAMINATION 2023**

**FOOD PROCESS TECHNOLOGY-IV**

Time : Three hours

Use separate Answer script for each Part.

Full Marks : 100

50 marks for each Part.

**PART I ( 50 Marks)**

**QI. Describe briefly with schematic diagrams (any two):**

**2 × 5 = 10**

1. Carbonation of soft drinks
2. Aromatization of coffee
3. Technical enzyme preparation

**QII. Answer the following (any two):**

**2 × 20 = 40**

1. Comparatively discuss the two 'processes at origin' for manufacture of coffee.
2. How is the soluble solid (SS) content increased during manufacture of instant coffee powder?
3. Describe use of enzymes in preparation of sugar syrup of 'cola drink' for its desirable flavor and consistency.
4. Enumerate the role of the following enzymes in food processing [choosing appropriate food product(s) for each enzyme]:
  1. Pectinases
  2. Fungal  $\alpha$ -amylase
  3. Catalase
  4. Papain

**B.E. FOOD TECHNOLOGY AND BIO-CHEMICAL ENGINEERING THIRD YEAR SECOND SEMESTER SUPPLEMENTARY EXAM - 2023**

**FOOD PROCESS TECHNOLOGY IV**

Time: 3hours

Total Marks: 100

Part II (Marks 50 )

Answer any **five** questions from the following: 5x10

1. State the main constituents of milk. Explain about casein of milk. Explain any three factors affecting composition of milk. 2+3+5
2. Differentiate between :
  - a) toned milk and double toned milk.
  - b) whole milk and skimmed milk?
  - c) sweetened condensed milk and evaporated milk. 2.5+2.5+5
3. a) What is the function of stabilizer in icecream preparation. What is meant by over run of icecream? /
- b) 950L of ice-cream was made from 458L of ice-cream mix. Find % over run in ice cream. / 3+3+4
4. What is homogenization? What are the advantages of homogenization of milk? /
- How homogenization index is determined? 2+3+ 5
5. Explain about green tea and decaffeinated tea 5+5
6. Mention the fat content of low fat cream ,medium fat cream and high fat cream. Explain ripening of cream? / 4.5+5.5
7. Write short notes on **any two** from the following: 2x5
- a) Oolong tea
- b) Advantages of HTST pasteurization.-
- c) whey protein