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GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VII(NEW) • EXAMINATION – WINTER 2016

Subject Code:2171407 Date: 29/11/2016 Subject Name: Horticultural Produce Processing (Departmental Elective - III) Time: 10.30 AM to 1.00 PM **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. (a) Define canning and explain in detail about exhausting of cans. **Q.1** 07 **(b)** Differentiate following 07 (i) Photosynthesis and Respiration (ii) Climacteric and Non climacteric fruits Explain the role of exhausting and headspace in maintaining the quality of **Q.2** 07 canned products. **(b)** What are different types of pickle? Explain the pickling process. 07 **(b)** Write short notes: 07 1. Blanching of fruits 2. Cooling of cans What do you mean by respiratory quotient? Write in detail about respiratory Q.3 **07** substrates. Explain the nature of spoilage indicated by Flat sour and Springer. **(b)** 07 0.3 Write the standard specifications of jam and explain in detail about the role of 07 acid in jam making. Enlist different maturity indices for fruits and vegetables and explain chemical 07 indices **Q.4** (a) Enlist factors affecting rate of respiration and discuss any two in detail. 07 (b) Explain the protocol to determine the pectin content of fruit extract and state its 07 importance. OR Enlist and explain the factors affecting the strength of fruit pectin jelly. **07** 0.4 Justify the statement "In controlled atmosphere storage oxygen concentration 07 cannot be decreased and carbon dioxide concentration cannot be increased after certain critical levels for some commodities". **Q.5** Write short notes on: **07** (a) 1. Preservation of juice by germ proof filtration 2. Methods of juice extraction (b) Describe different processed Tomato products and write a note on 'Extraction 07 of Tomato juice' OR Write a detailed note on post harvest losses and describe the measures taken to **07 Q.5** reduce post harvest losses. State the principle involved in enzymatic clarification of fruit juices and **07** explains the process of fruit juice clarification using physical fining agents.