

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE SEM-VIII Examination May 2012

Subject code: 181402

Subject Name: Horticultural Produce Processing

Date: 12/05/2012

Time: 10.30 am – 01.00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) Define horticulture and write the scope & benefits of horticultural crop processing. **07**

Write short notes on following: **07**

1. Exhausting of cans.
2. Brine used in canning.

Q.2 (a) Define jelly and explain the process for guava jelly. **07**

(b) Describe the role of individual pickle ingredients and give process flow diagram for preparation of mango pickle. **07**

OR

(b) Explain the methods used for measurement of respiratory gases during storage. **07**

Q.3 (a) Write the ideal storage conditions for the jam and explain the methods to judge the end point of jam. **07**

(b) Enlist the different types of fruit beverages and explain the fruit juice clarification process using chemical fining agents. **07**

OR

Q.3 (a) Explain in detail how the juices are preserved with chemicals. **07**

(b) Explain the different unit operations involved in okra canning. **07**

Q.4 (a) Enlist the various changes taking place during ripening process and describe textural changes. **07**

(b) Write a detailed note on post harvest losses and suggest steps to prevent them. **07**

OR

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| Q.4 | (a) | State and explain critical points during manufacture of tomato ketchup along with standard recipe. | 07 |
| | (b) | Describe the process for preparation of tomato juice. | 07 |

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| Q.5 | (a) | Explain the “Pasteur effect” observed for certain commodities during controlled atmosphere storage with it’s scientific justification. | 07 |
| | (b) | Describe different types of physiological stress and resistance mechanism. | 07 |

OR

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| Q.5 | (a) | Define following terms | 08 |
| | | a. Q_{10} | |
| | | b. Physiology | |
| | | c. Maturity | |
| | | d. Respiration | |
| | (b) | Enlist various methods used for determination of maturity of fruits and vegetables and write in brief about computational methods. | 06 |
