

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER-VII (NEW) EXAMINATION – WINTER 2020****Subject Code:2171407****Date:28/01/2021****Subject Name:Horticultural Produce Processing****Time:10:30 AM TO 12:30 PM****Total Marks: 56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Briefly explain the techniques to overcome the sugar crystallization defect in jam. **03**
- (b) Write a detailed note on 'Post harvest losses in fruits and vegetables' **04**
- (c) What are the FSSAI requirements for tomato ketchup and explain the flow diagram with technical details for manufacture of tomato ketchup. **07**
- Q.2** (a) Explain shortly the fibril theory of gel formation. **03**
- (b) Differentiate followings: **04**
- i) Climacteric and Non climacteric fruits
- ii) Fruit jam and fruit jelly
- (c) What are different types of pickle? Explain the pickling process. **07**
- Q.3** (a) State the various techniques to judge the end point of jelly set. **03**
- (b) Define canning and explain in detail about exhausting of cans. **04**
- (c) What are the various changes taking place during ripening process in fruits? Describe the textural changes in fruits. **07**
- Q.4** (a) State various defects in fruit jelly? **03**
- (b) What is breather defect in canned product? Give it's causes and remedies **04**
- (c) Enlist different maturity indices for fruits and vegetables and explain chemical indices. **07**
- Q.5** (a) Write a note on 'Extraction of Tomato juice' **03**
- (b) Enlist factors affecting rate of respiration and discuss any two in detail **04**
- (c) Write short notes: **07**
- i) Blanching of fruits
- ii) Sterilization of cans

- Q.6** (a) Comments on 'Spoilage of canned foods' **03**
- (b) What do you mean by respiratory quotient? Write in detail about respiratory substrates. **04**
- (c) Explain the effect of altitude on time and temperature of can processing. **07**
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- Q.7** (a) Write a short note on 'Types of fruits' **03**
- (b) Give the FSSAI requirements for squash and cordials and discuss the process of preparation of squash. **04**
- (c) Explain the role of pectin and acid in jelly making. **07**
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- Q.8** (a) Write a note on Enzymatic clarification of fruit juices. **03**
- (b) Explain the role of chemical preservatives in preservation of fruit juices. **04**
- (c) Give the legal specifications of jam and describe the technological flow chart for preparation of jam. **07**

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