



Roll No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**B TECH**  
**(SEM-V) THEORY EXAMINATION 2020 - 21**  
**FRUITS, VEGETABLES AND PLANTATION PRODUCTS**

Time: 3 Hours

Total Marks: 100

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

## SECTION A

1. Attempt all questions in brief.

2 x 10 = 20

Q. No.	Question	Marks	CO
a.	Distinguish between climacteric and non-climacteric fruits.	2	
b.	What is vacuole in plant cell?	2	
c.	Differentiate between squashes and cordials.	2	
d.	Give the FSSAI specifications for tomato products.	2	
e.	What are glazed fruits?	2	
f.	What are condiments?	2	
g.	What is CNSL in cashew nut processing?	2	
h.	What is CTC in Tea processing?	2	
i.	What is chicory?	2	
j.	What is winnowing in cocoa processing?	2	

## SECTION B

2. Attempt any three of the following:

3 x 10 = 30

Q. No.	Question	Marks	CO
a.	Differentiate between fruits and vegetables. Also discuss the factors that affect the texture of fruits and vegetables.	10	
b.	Write an explanatory note on preserves, candied and crystallized fruits.	10	
c.	Write a precise technical note on cryogenic grinding of spices.	10	
d.	Why is it necessary to remove mucilage from coffee beans? Discuss the method of pulping and mucilage removal in coffee processing.	10	
e.	Write a precise technical note on chocolate defects.	10	

## SECTION C

3. Attempt any one part of the following:

a.	Draw a well labeled diagram of parenchyma cell and discuss its structural features.	10	
b.	Comment on 'Physiological development of fruits and vegetables'.	10	

4. Attempt any one part of the following:

a.	Discuss the various causes responsible for quality deterioration in fruits juices. Also discuss the various methods adopted for preservation of fruit juices.	10	
b.	Discuss the method of manufacturing of jelly. Also discuss the methods for determination of end point in jams and jellies.		

5. Attempt any one part of the following:

a.	Give the classification of spices. Also discuss the manufacturing of spice oils and oleoresins.	10	
b.	Discuss in detail the Processing of Cashew nut.	10	

6. Attempt any one part of the following:

a.	Give the classification of commercial tea and discuss the manufacturing of Black Tea.	10	
b.	Discuss the processing of coffee beans. Also comment on decaffeination of coffee.	10	

7. Attempt any one part of the following:

a.	Discuss in detail the processing of cocoa beans.	10	
b.	Discuss about the basic ingredients that are used in chocolate manufacturing. Also explain refining and conching in its manufacturing.	10	