

Total No. of printed pages = 3

PG/1st Sem/PFET 1111

2021

**MODERN FRUITS AND VEGETABLES
PROCESSING TECHNIQUES**

Full Marks – 100

Time – Three hours .

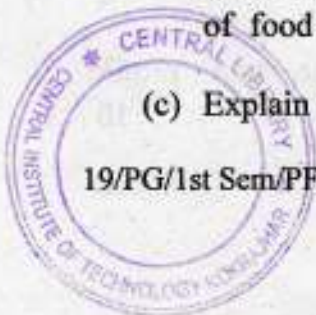
The figures in the margin indicate full marks
for the questions.

Answer any *five* questions.

1. (a) Write short notes on the following sanitizers
used in the pre-processing (washing) of fruits
and vegetables : 3+3=6
 - (i) Chlorine
 - (ii) Chlorine dioxide.
- (b) How advanced thermal processing methods
differ from traditional thermal processing
technologies ? 4
- (c) Write in detail about the thin profile
processing of foods. 10

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2. (a) List the principles governing the effects of HPP in foods. Explain about any two principles associated with the effect of HPP in foods. $4+6=10$
- (b) Write about the role of enzymes in the apple juice clarification process with proper schematic diagram. 10
3. (a) Give the flow chart for the production process of following products : $5+5=10$
- (i) Cordials
- (ii) Nectars.
- (b) Explain the manufacturing process of fruit preserves with neat flow chart. 10
4. (a) Write in detail about the different theories for gel formation. 10
- (b) Define texture of food. Why measurement of texture is important to determine the quality of food ? $1+2=3$
- (c) Explain the TPA test in detail. 7



5. (a) Define food adulterant and adulteration with its types. Mention the adulterant and its detection procedure for any one sweetening agent and one oil and fat food product. 10
- (b) Describe two techniques for microbial load count in a food sample. 10
6. (a) Define colour of food. What are the attributes that are measured in colour measurement? Mention the formulas required for it. 5
- (b) Explain the working principle and procedure of colour measurement in details. 10
- (c) What are the factors that affect the microbial growth? 5
7. (a) Explain the working principle of PCR. 10
- (b) How PEF works in food preservation? Explain its working principle. 10

