

B.Voc. DEGREE EXAMINATION, NOVEMBER 2021
FOOD PROCESSING AND QUALITY CONTROL

COURSE: MAJOR CORE

PAPER: POST HARVEST TECHNOLOGY

TIME: 3 HOURS

MAX. MARKS: 100

SECTION – A

(20 marks)

ANSWER ALL QUESTIONS

(10 x 1= 10)

I. Choose the correct answer.

- All these conditions will enhance sprouting of grains except
 - Moisture
 - Heat generated
 - Low temperature
 - Oxygen
- Continuous plate heat exchangers are useful for thermal processing of
 - Cuts of chicken
 - Milk
 - Fruit juice
 - Both b & c
- Which of the following is not a preharvest factor causing post-harvest loss
 - Irrigation
 - Nutrient deficiency
 - Frost damage
 - Variety of crop
- Identify the traditional storage technique among these
 - Hypobaric
 - Evaporative cooling
 - Freezer
 - Refrigeration
- The fruit where there is a rapid increase in the respiration after the harvest is
 - Mango
 - Lime
 - Grape
 - Apple

II Fill in the Blanks:

- The point of slowest heating in a can is called as _____ spot.
- The stage of development when plant or plant parts possess the pre-requisites for utilization by consumers for a purpose is _____ maturity.
- Large ice crystals are formed during _____ freezing.
- The process of removing green color pigment chlorophyll from food after harvest is called _____.
- The time at a particular temperature required to reduce the microbial load by 1 log (90%) is referred to as _____.

III. Answer in two sentences

(5 x 2 = 10)

- Advantage of machine harvesting
- Ethylene
- Waxing
- Curing
- Difference between CAP and MAP.

SECTION – B

(15 x 2=30)

Answer any TWO questions

16. A food with a pH of 5 and water activity of 0.9 has to be thermally processed. The manufacturer Sea King ltd. is confused whether the food has to be pasteurized or sterilized to ensure long term preservation. Help identify the ideal thermal processing suitable for this food and justify. Explain in detail any one retort technique.
17. Assess the importance of post harvest technology for a developing country like India.
18. What is a food pipeline? Diagrammatically represent the food loss pipeline for fruits.
19. Explain about irradiation technology and its effect on specific aspects of food quality.

SECTION – C

(25 x 2 = 50)

Answer any TWO questions

20. Explain why foods are blanched before processing and write the ideal technique of blanching. Write in brief the effect of blanching on the overall quality of the food.
21. Elucidate the need and principle behind determining total soluble solids? Write down the precautions and steps to take while determining the TSS.
22. Is measurement of starch content reliable test for assessing the maturity of fruits? Justify. Explain with clear steps, how the starch iodine test can be used for maturity assessment.
23. What physical parameters can be used to assess the maturity of orange fruit? Write in detail the procedure for estimation of brix-acid ratio.
