


Name:			
Enrolment No:			
UPES			
End Semester Examination, May 2024			
Course: Fruit and Vegetable Processing Technology		Semester: IV	
Program: B.Tech. Food Technology		Duration: 3 Hours	
Course Code: HSFT 2007		Max. Marks: 100	
Instructions: Read all the questions carefully.			
	Section A		
S. No.	Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)	Marks	COs
Q1	Which one is the major component of a Mason jar? a) Glass. b) Aluminum. c) Steel. d) Cardboard.	1.5	CO1
Q2	The number of soluble solids that are dissolved within a substance. It is determined using _____. a) Penetrometer b) Refractometer c) Thermometer d) pH meter	1.5	CO1
Q3	The fruit and sugar ratio for Jam is _____. a) 1:2 b) 1:1 c) 1:4 d) 1:3	1.5	CO1
Q4	How much percent of sugar is necessary for the preservation of fruits? a) 45 b) 58 c) 40 d) 66	1.5	CO1
Q5	Ice crystals in frozen meat should be formed by rapid crystallization. a) True b) False	1.5	CO1
Q6	Which of the following dryers is used to produce powder from the solution? a) Spray dryer b) Cabinet tray dryer c) Pneumatic dryer d) Fluidized bed dryer	1.5	CO2

Q7	<p>What is the full form of the LSU dryer?</p> <p>a) Louisiana State University dryer b) Low simple universal dryer c) Low and slow unit dryer d) Level steady unit dryer</p>	1.5	CO2
Q8	<p>Evaporation, desiccation and dehydration all mean the same thing.</p> <p>a) True b) False</p>	1.5	CO2
Q9	<p>Which of the following is an advantage/use of dried food items?</p> <p>a) Lesser cost and minimum labour required b) Limited processing equipment and minimum food storage requirements c) Reduction in distribution costs d) All of the mentioned</p>	1.5	CO2
Q10	<p>Carbon dioxide is used due to which of its properties in food packages?</p> <p>a) Anti-collapse property b) Filling property c) Antimicrobial property d) Ethylene displacing property</p>	1.5	CO2
Q11	<p>Which of the following is true about fruit and vegetable processing?</p> <p>a) They spoil very fast and hence need to be consumed soon b) They have high moisture content and should be kept in a cold, dark place c) They're tender and hence get spoiled easily d) All of the mentioned</p>	1.5	CO3
Q12	<p>Statement 1: Primary processing such as trimming, sorting, and cleaning can be done to add value to products. Statement 2: Secondary processing such as converting raw materials to products such as jellies, marmalade etc.</p> <p>a) True, False b) True, True c) False, False d) False, True</p>	1.5	CO3
Q13	<p>Statement 1: Jam cannot be made using the pulp of more than one fruit. Statement 2: Acid and Pectin content is higher in over-ripe fruits than in under-ripe fruits.</p> <p>a) True, False b) True, True c) False, False d) False, True</p>	1.5	CO3

Q14	What is marmalade? a) It is a fruit preserve. b) It is a vegetable preserve. c) Both and b. d) None of the above.	1.5	CO3
Q15	Jam generally contains Total Soluble Solids (TSS) percentage _____. a) 80.5% b) 90.5% c) 68.5% d) 71.3%	1.5	CO3
Q16	What is canning? a) Application of high temperature to food. b) Application of low temperature to food. c) Both and b. d) None of the above.	1.5	CO4
Q17	Which one is the key requirement of food preservation? a) For future needs. b) To preserve food when the availability of food is more than the present use. c) For more marketing. d) All of the above.	1.5	CO4
Q18	_____ is the most widely used inert gas in MAP. a) Xenon b) Krypton c) Argon d) Helium	1.5	CO3
Q19	Which of the following is the most soluble gas used in MAP? a) Carbon Dioxide b) Nitrogen c) Oxygen d) Argon	1.5	CO4
Q20	_____ employs a continuous gas stream that flushes air out from the package before sealing. a) Thermal sealing b) Gas flushing c) Thermal flushing d) Pressure sealing.	1.5	CO3
Section B (4Qx5M=20 Marks)			
Q 1	What is the difference between fruit and vegetable? Describe the different attributes of fruits and vegetables.	5	CO4
Q 2	Describe the chemical composition of fruits and vegetables.	5	CO2
Q 3	Define bottling. Write the procedure of bottling.	5	CO1

Q 4	Write down the different attributes of food packaged in glass containers.	5	CO1
Section C (2Qx15M=30 Marks)			
Q 1	Ravi wants to set up a CAS unit for fruits and vegetables. Write down different components of this unit. (5 marks) Describe the principle and working of all components in detail. (10 marks)	15	CO4
Q 2	Sunil owns a fruit and vegetable canning unit. Answer the following questions: a) Describe the principle and working of mango canning with a flow chart. (5 marks) b) Describe the step-by-step process of canning in detail. (10 marks)	15	CO4
Section D (2Qx10M=20 Marks)			
Q 1	What are the different quality changes occurring in fruits and vegetables during harvesting and storage?	10	CO2
Q 2	Describe the drying and refrigeration processes with its advantages and disadvantages	10	CO3