


Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2023

Course: Beverage Technology	Semester : 5th
Program: B.Tech (Food Technology)	Duration: 3 Hours
Course Code: HSFT3008	Max. Marks: 100

Instructions: Attend all the sections.

S. No.	Section A (20Qx1.5M= 30 Marks)	Marks	COs
Q 1			
1	In most fruit juices, the major portion of total soluble solids is consists of (a) Salt (b) Sugar (c) Vitamin (c) Mineral	1.5	CO 1
2	Which of the following is stimulating beverage (a) Coffee (b) Soft drink (c) Pure juice (d) Milk	1.5	CO 1
3	The major ingredients of carbonated soft drink in addition to water is (a) CO ₂ (b) Sugar (c) Flavoring (d) Acid (e) All of these	1.5	CO 1
4	The percentage of water in carbonated soft drink is (a) 92% (b) 60% (c) 70% (d) 50%	1.5	CO 1
5	The maximum concentration of alcohol in beer is (a) 3-6% (b) 8-7% (c) 10-15% (d) 15-12%	1.5	CO 1
6	_____ enzyme is present in malted beverages. (a) Lipase (b) Protease (c) Amylase (d) Phenolase	1.5	CO 1
7	Most common ingredient for beer is (a) Barley (b) Rice (c) Sorghum (d) Oat	1.5	CO 2
8	For black tea processing, fermentation of rolled leaves is done for ___h. (a) 0.5-1h (b) 2-5h (c) 8-10h (d) 12-15h	1.5	CO 2
9	Caffeine in coffee is present in the range of (a) 5-6% (b) 1-1.8% (c) 10-12% (d) 12-15%	1.5	CO 2
10	State the names of preservatives used in carbonated non-alcoholic beverages? (At least 3)	1.5	CO 2
11	What is the temperature of mash tun in beer production process?	1.5	CO 2
12	Differentiate between infusion and decoction.	1.5	CO 2

13	What temperature and time is required for flash pasteurization in beer making process?	1.5	CO 2
14	What is the role of hops in beer?	1.5	CO 3
15	What is carbonated soft drinks?	1.5	CO 3
16	Define Brewing.	1.5	CO 3
17	Mention the incubation temperature and time required in acidophilus milk.	1.5	CO 3
18	Which chemical is added to control microorganisms during fermentation beer process?	1.5	CO 3
19	In brandy making process, what is the percentage of alcohol in 1 st distillation and 2 nd distillation process?	1.5	CO 3
20	Define solera process in brandy making.	1.5	CO 3
Section B (4Qx5M=20 Marks)			
Q 1			
1	Give classification and chemical composition of food additives.	5	CO 1
2	Write the health benefits of wine.	5	CO 2
3	Describe clarification and aging operation.	5	CO 3
4	Differentiate between bottle fermentation and malolactic fermentation.	5	CO 3
Section C (2Qx15M=30 Marks)			
Q 1			
1	Write the process of manufacture of beer in details.	15	CO 4
2	What is instant coffee? How is differ from brewing coffee? Explain manufacturing of instant coffee with the help of flow diagram.	15	CO 5
Section D (2Qx10M=20 Marks)			
Q 1			
1	Draw the flowchart of vodka production process and brandy manufacturing process.	10	CO 4
2	What are the types of Tea? Explain the basic steps for manufacturing of Tea.	10	CO 5