## D/6<sup>th</sup> /DFET612

## 2024

## TEA, COFFEE AND COCOA PROCESSING

Full Marks: 100

Time: Three hours

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

Answer any five questions.

1.	a)	Define Tea. What are the different species of tea are used for processing?	3
	b)	<ul> <li>i. Where activity of polyphenol oxidase is most?</li> <li>ii. Theaflavins provide the attribute</li></ul>	7
	c)	Write a short note on cultivation of Camellia.	10
2.	a)	Explain the proceeding of green tea.	10
	b)	How black tea can be processed? List out the various steps. Explain the fermentation and drying steps during processing	10
3.		<ul> <li>i. Which of the following is NOT a step in Black tea manufacture?</li> <li>a) Drying/Firing</li> <li>b) Rolling</li> <li>c) Withering</li> <li>d) Lump formation</li> <li>ii. Difference of Green tea from Black tea is that –</li> <li>a) The oxidation process is omitted</li> <li>b) The tea leaves are steamed in a pan before being rolled so that the enzymes don't</li> <li>interact with air and oxidize</li> <li>c) Both of the mentioned</li> <li>d) None of the mentioned</li> </ul>	8

		iii. Ripened berries sink in water and unripe ones float on water.(True/False)	
		iv. The process of tasting coffee is called	
		a) Cupping	
		b) Green Coffee	
		c) Both of the mentioned	
		d) None of the mentioned	
		v. Which of the following is NOT a step in Black tea manufacture?	
		a) Rolling of the leaves on a horizontal roller	
		b) Putting the leaves in a vacuum drier to remove moisture	
		c) Roll breaking using sieves	
		d) None of the mentioned	
		vi. What is the activity of polyphenol oxidase? vii. What is the final heating temperature range for Kammairi-cha process green tea	
		viii. What is the difference between Indian and Chinese tea?	
	b)	What are the different types of catechins present in tea? List out the name with its specific amount present in a tea leaves. Discuss how semi-fermented tea can be processed.	3+2+7
4.	a)	Discuss about the present status of tea production in India and compare the data with global production.	6
	b)	What are the needs of packing in tea? Explain the different types of packaging used for tea and coffee.	5+5
	c)	Draw the product flowchart of cocoa beans	4
5.	a)	Explain the wet processing of coffee processing in details	12
	b)	Discuss the morphology of coffee cherry with a schematic diagram	4
	c)	What are two species used in coffee processing/ write a short note on ecology and growing condition required for coffee cultivation.	4
6.	a)	Explain any four types of packaging materials used in tea packaging	12
	b)	How pulping of coffee beans with its respective condition are done?  Explain with a schematic diagram of pulpers	8
7.	a)	Explain in details the processing of cocoa mass, and powder	12
	b)	Explain the importance of roasting and ditching step in cocoa processing	5
	c)	List out the various ingredients present in cocoa	3
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