

BV (6/CBCS) FPT/FPM VE 1

2024

FOOD PROCESSING TECHNOLOGY/FOOD PROCESSING AND QUALITY MANAGEMENT

Paper : FPT-VE-6016/FPM-VE-6016

**(Industrial Processing of Tea, Coffee
and Spices)**

Full Marks : 60

Time : 3 hours

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

1. Choose the correct option of the following : $1 \times 7 = 7$

(a) Which of the following is not a type of tea?

(i) Green tea

(ii) Red tea

(iii) Oolong tea

(iv) Yellow tea

(b) Tea fermentation is primarily associated with which type of tea?

(i) Green tea

(ii) Black tea

(iii) White tea

(iv) Oolong tea

- (c) The primary compound responsible for flavour of coffee is
- (i) caffeine
 - (ii) theobromine
 - (iii) chlorogenic acid
 - (iv) melanoidin
- (d) Coffee quality analysis primarily focuses on evaluating
- (i) aroma
 - (ii) color
 - (iii) taste
 - (iv) All of the above
- (e) Which of the following is a volatile oil obtained from spices?
- (i) Catechin
 - (ii) Eugenol
 - (iii) Quercetin
 - (iv) Resveratrol
- (f) Which spice is known for its antioxidant properties?
- (i) Turmeric
 - (ii) Cinnamon
 - (iii) Paprika
 - (iv) Nutmeg

(g) Which compound found in tea is known for its antioxidant properties?

(i) Caffeine

(ii) L-theanine

(iii) Epigallocatechin gallate (EGCG)

(iv) Theophylline

2. Answer the following very short answer-type questions :

2×4=8

(a) What is the primary function of volatile oils in spices?

(b) Write the impact of processing techniques on the aroma of coffee.

(c) What is the primary difference between white tea and yellow tea?

(d) Briefly explain the concept of coffee quality analysis.

3. Answer the following short answer-type questions (any three) :

5×3=15

(a) Discuss the significance of Assam tea in the tea industry.

(b) Describe the functions of oleoresins in spice-based products.

(c) Explain the processing techniques used for making white tea.

- (d) Explain the withering process in black tea production. How does it affect the moisture content and texture of tea leaves?
- (e) Discuss the different types of tea plucking styles, such as fine plucking and coarse plucking. How do these methods affect the quality and flavour of tea leaves?

4. Answer the following essay-type questions
(any three) : 10×3=30

- (a) Outline the main steps involved in the processing of green tea. How does it differ from the processing of black tea?
- (b) Analyze the impact of spice processing techniques on the final quality and aroma of spices.
- (c) Describe the key steps involved in the processing of black tea from freshly harvested tea leaves.
- (d) Compare and contrast the CTC and orthodox tea processing methods. Discuss the advantages and disadvantages of each method in terms of flavour, appearance and market demand.

(5)

- (e) Explain the main steps involved in the processing of coffee beans from harvesting to final packaging.
- (f) Write notes on the following :
- (i) Kombucha
 - (ii) Instant tea
