



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food Technology) 2023 Admission
III Semester Final Examination – January 2025

Pafe.2114

Food Chemistry of Micronutrients (2+1)

Marks: 50
Time: 2 hours

I Fill in the blanks (10x1=10)

1. The art and knowledge involved in preparing and eating good food is known as -----
2. The process where heat inactivation of spoilage enzyme in vegetables prior to further processing is carried out is called -----
3. Vitamin E is also known as -----
4. The recommended dietary allowance of folic acid for adults is -----
5. One of the most commonly used enzymes in baking is -----

Answer the following

6. Which Vitamin is commonly added to fortify milk?
7. Which is the name of the first flavor enhancer to be used commercially?
8. Name the two types of betalains.
9. Name the water soluble plant pigments present in fruits, particularly in berries, and vegetables where they occur naturally as glycosides.
10. Name the terpene compound found in citrus fruits like lemons, oranges, and limes.

II Write short notes on ANY FIVE of the following (5x2=10)

1. Define Maillard reaction.
2. Name any two synthetic and two natural dyes approved for use in food.
3. Bring out the role played by flavonoids.
4. Differentiate between fortification and restoration.
5. Write on the regulatory use of dyes in food.
6. What is the philosophy behind flavor?
7. What is meant by Recommended Dietary Allowance?

III Answer ANY FIVE of the following (5x4=20)

1. Describe the role of endogenous enzymes in food quality.
2. Write briefly on antinutritional factors.
3. Elaborate some strategies to optimize and retain vitamins during food processing.
4. List the various factors affecting perception of flavour
5. Explain the role played by heme pigments in food.
6. What are the main types of food fortification?
7. Discuss the colour losses during thermal processing.

IV Write an essay on ANY ONE of the following (1x10=10)

1. Briefly explain the applications of enzymes in food industry.
2. Write an essay on the technology for flavor retention.
