

2124

B. Voc. (Food Processing and Preservation)

First Semester

FPP-103: Nutrition and Food Chemistry

Time allowed: 3 Hours

Max. Marks: 40

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

Q1. Attempt the following:-

- a) What is meant by bioavailability of nutrients.
- b) Give structure of glycolipids.
- c) Enlist factors affecting enzyme efficiency.
- d) What is Urea cycle?
- e) Explain Maillard reaction.
- f) Explain coenzyme.
- g) Give general chemical composition of milk.
- h) What is thermal coagulation in eggs?

(8x1)

Unit I

Q2 Discuss the major and minor constituents of food along with their sources and functions. (8)

Q3

- a) Describe saturated and unsaturated lipids along with example.
- b) Write short note on phospholipids.

(5,3)

UNIT - II

Q4 Explain the classification of amino acids and their importance in nutrition. (8)

Q5 Write short note on following

- a) Classification of enzymes.
- b) Types of Vitamins and their functions.

(4,4)

UNIT - III

Q6

- a) Explain oxidative and hydrolytic rancidity with their significance in food quality.
- b) Explain caramelization with example.

(5,3)

Q7

- a) Explain gelatinisation and retrogradation of starches.
- b) Discuss protein denaturation and its implications in food processing.

(4,4)

(2)

UNIT - IV

Q8

- a) Describe the changes milk undergoes during heat processing.
- b) Explain the structure and composition of eggs. (4,4)

Q9

- a) Explain role of wheat gluten proteins in food products.
- b) What are food additives? Explain their types and roles in food preservation. (4,4)

x-x-x