

2122

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. I which is compulsory and selecting one question from each Unit.

x-x-x

I. Answer the following:-

- a) What are major constituents of food?
- b) Explain unsaturated lipids
- c) What are coenzymes.
- d) Give functions of vitamins
- e) Explain Maillard reaction
- f) What is Gelatinization?
- g) Name major disaccharide found in milk.
- h) What is thermal coagulation of egg?

(8x1)

UNIT - I

II. Explain the following:-

- a) Food sources of carbohydrates
- b) Glycoproteins

(4,4)

III. a) What is importance of water in food?

- b) Explain properties and functions of phospholipids

(3,5)

UNIT - II

IV. a) Explain the factors affecting enzyme activity

- b) Explain types and function of minerals in food

(4,4)

V. a) Explain urea cycle

- b) Discuss classification of amino acids

(4,4)

P.T.O.

(2)

UNIT - III

- VI. a) Explain oxidative and hydrolytic rancidity
b) Write short note on protein denaturation and its importance in food industry? (4,4)
- VII. Write short note on following:-
a) Caramelization
b) Retrogradation of starches (4,4)

UNIT - IV

- VIII. a) Explain the changes occurring in milk during heat processing
b) Explain wheat gluten protein (5,3)
- IX. a) Explain foaming and emulsification of eggs
b) Write short note on food additives (5,3)

x-x-x