

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) Agriculture

Semester	: VI (New)	Term	: Second	Academic Year	: 2023-24
Course No.	: FST 362	Title	: Principles of Food Science and Nutrition		
Credits	: 2 (2+0)				
Day & Date	: Tuesday, 23.04.2024	Time	: 14:00 to 17:00 hrs.	Total Marks	: 80

- Note :**
1. Solve ANY EIGHT questions from SECTION 'A'.
 2. All questions from SECTION 'B' are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagram wherever necessary.

SECTION 'A'

- Q.1 State and explain the chemical properties of food.
- Q.2 Enlist and explain the physical properties of food.
- Q.3 Explain in short chemistry of carbohydrates.
- Q.4 Explain chemistry of protein in brief.
- Q.5 Define Vitamin. Explain fat soluble vitamins.
- Q.6 Enlist the most common microorganisms of food and elaborate yeast and bacteria.
- Q.7 How is food preserved and processed by heat? Explain its various methods in brief.
- Q.8 Enlist the different national programmes adopted for improving the nutritional status of a community. Explain National Anemia Control Programme.
- Q.9 What is Food fortification? Explain in brief.
- Q.10 Enlist the nutritional problems caused by vitamin deficiencies and explain in short about thiamine and ascorbic acid deficiency.

SECTION 'B'

Q.11 Fill in the blanks:

- 1) Freezing point of a material is the _____ at which it changes from liquid to solid.
- 2) Folic acid comes from a _____ word.
- 3) Spectrophotometers are used for a more reliable measurement of _____.
- 4) _____ pigments are responsible for the red, purple and blue colour of fruits.
- 5) Foams are dispersions of _____ in a liquid which is the continuous phase.
- 6) 1g of Carbohydrates gives _____ kcal of energy.
- 7) _____ is a process used for inactivating enzymes in blanching.
- 8) The generic name of Polysaccharides is _____.

(P.T.O.)

Q.12 State True or False:

- 1) Molds are multicellular microorganisms with mycelia morphology.
- 2) Rheology deals with Elasticity, Plasticity and Viscosity.
- 3) Beriberi is not caused due to the deficiency of Vitamin B.
- 4) Recommended dietary allowances are estimates of nutrients to be consumed daily.
- 5) Lathyrism is caused due to excess consumption of cereals.
- 6) Hedonic rating relates to pleasurable or unpleasurable experiences.
- 7) Green pigments involved in photosynthesis in plants and microorganisms are xanthophylls.
- 8) Lactic acid bacteria are useful bacteria.

