

Branch - NUTRITION, FOOD SERVICE MANAGEMENT & DIETETICS

CHEMISTRY OF FOODS

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)

- 1 Write the factors contributing hardness to water.
- 2 Mention any four factors affecting the composition of food.
- 3 Give a note on mayonnaise.
- 4 Write the structure of any two hexoses.
- 5 Define: (i) Flashpoint (ii) Iodine number. ■
- 6 Mention the uses of pectic substances.
- 7 Write the significance of emulsifying agents.
- 8 Define: (i) Iso-electric point (ii) Reference protein.
- 9 Mention the function of hemoglobin.
- 10 What happens to water soluble pigments in vegetables while cooking in water? •

SECTION - B (25 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 5 = 25)

- 11 a Briefly mention the role of hydrogen ion concentration in foods.
- • OR
b What are non-nutrient components?
- 12 a Give any five properties of colloids.
OR
b Write a note on surface films.
- 13 a Explain the structure of any two cereal starches with suitable diagram.
OR
b Write the sources and chemistry of glycogen.
- 14 a Explain the classification of fatty acids with suitable examples.
OR
b Briefly present the structure organisation of proteins.
- 15 a Write a note on the uses of certified artificial colors with example.
OR •
b Discuss the merits and demerits of using flavouring agents.

SECTION - C (30 Marks)

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Discuss: (i) Classification of foods based on moisture context (4)
% (ii) Individual uniformity and individual variability (6)
- 17 Narrate the different kinds of foams and write the factors affecting foam formation.
- 18 Describe the general properties and uses of pectic substances.
- 19 Elaborate the sources and nutritional significance of various animal proteins.
- 20 Discuss the types of browning reactions in foods and write the measures of prevention.