

FOOD CHEMISTRY

Time : Three Hours

Maximum: 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10x2 = 20)

- 1 Define surface tension.
- 2 What is homogenization? Give an example for homogenized product.
- 3 Define solute and solvent.
- 4 Write the significance of dextrinisation.
- 5 What is smoke and fire points of lipids?
- 6 Define hydrogenation.
- 7 What is a peptide bond?
- 8 What are endogenous enzymes? Give an example.
- 9 Write the food sources of vitamin B and C.
- 10 Define flavour intensifier with two examples.

SECTION - B (25 Marks)

Answer ALL Questions

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

- 11 a Discuss on the applications of colloidal foods.
OR
b Write a note on: (i) Titrable acidity (ii) Viscosity.
- 12 a Mention the procedure involved in the assessment of moisture content in foods
OR
b Give a note on the thickening and gelling properties of xanthan and pectin.
- 13 a Describe the chemical properties of fatty-acids.
OR
b Discuss the effect of rancidity with suitable examples.
- 14 a Explain enzymatic browning reactions in fruit and vegetables.
OR
b Narrate the classification of proteins based on their sources and shapes.
- 15 a Write the principle and procedure for Vitamin C determination.
OR
b Discuss the role of antioxidants in food processing.

SECTION - C (30 Marks)

Answer any THREE Questions

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

- 16 Discuss on the applications of emulsifications and high frequency heating in food processing.
- 17 Explain with suitable examples: (i) Maillard (ii) Caramelisation (iii) Strecker degradation. (4 + 2 + 4)
- 18 Narrate the classification of saturated and unsaturated fatty acids.
- 19 Explain the determination of proteins in pulses by kjeldahl method.
- 20 ' Discuss on: (i) Minerals in food processing ,(n) Natural sources of volatile flavour compounds (iii) Natural colours (iv) Thermal reactions of sulphur compounds. (3+3+2+2)