

[Time: 3 Hours]

[Max. Marks: 75]

Food Analysis**Q.P. CODE: 5114**

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

LONG ESSAY (Answer any Three)**3 X 10 = 30 Marks**

1. Define and classify amino acids based on chemical nature. Explain principle, procedure and reactions involved in the determination of proteins by Kjealdal and Biuret method. (3+4+3)
2. Discuss the steps involved in converting crude oils into edible oils (refining of fats and oils). Also add a note any two lipid oxidation monitoring tests. (7+3)
3. Describe appropriate extraction and determination methods for lipid soluble (Chlorophylls and Carotenoids). (5+5)
4. Mention the composition of milk and add a note on determination of total solids. Give the procedure for the detection of gelatin in milk.

SHORT ESSAY (Answer any Nine)**9 X 5 = 45 Marks**

5. Detail note on digestion and absorption of carbohydrates
6. Discuss the principal and critical point involved in the estimation of riboflavin.
7. Explain in detail about the mechanism of rancidity and monitoring oxidation.
8. Discuss why pH is an important factor when analyse and separate anthocyanin pigment present in fruit juices.
9. Explain the function of thickening and jellying agents in foods and write the identification test for carboxymethyl cellulose and gelatin.
10. Write a note on immunoassays of pesticides residues also cross reactivity concern in this method.
11. Determination of salt content in butter
12. Describe the methods for the determination of Organophosphorous insecticide.
13. How the tannin, bitter substances are determined in beer?
14. Add a note on objectives, function and Agmark certification.

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