

PARUL UNIVERSITY
FACULTY OF PHARMACY
M.Pharm. Winter 2022 - 23 Examination

Semester:1
Subject Code: MPA104T
Subject Name: Food Analysis

Date: 20/03/2023
Time: 10:00am to 1:00pm
Total Marks: 75

Instructions:

1. Figures to the right indicate maximum marks.
2. Make suitable assumptions wherever necessary.

Q.1 Essay Type Questions. (any 2 out of 3) (15 Marks Each) (30)

1.
 - A). Give classification of carbohydrates. Describe the general methods of analysis of food carbohydrates.
 - B). Classify vitamins. Describe the microbiological assay of Vitamin B₁₂.
2.
 - A). Enumerate the artificial sweeteners. Discuss general methods of analysis for preservatives.
 - B). Discuss general methods of analysis for milk and cheese.
3.
 - A). Write a note on Effects of pest and insects on various foods and describe pesticide cycle.
 - B). Explain legislation regulations of food products according to Agmark.
 - C). Write a note on determination of pesticide residue in milk and milk products.

Q.2 Short Essay Type Questions. (any 5 out of 6) (5 Marks Each) (25)

1. Give classification & chemistry of amino acids.
2. Describe various methods for determination of adulteration in fats and oils.
3. Write a note on permitted and non-permitted synthetic dyes.
4. Explain analysis of wine and beer.
5. Explain legislation regulations of food products according to BIS.
6. Write a note on Antioxidants and their analysis.

Q.3 Short Answers. (2 Marks Each) (20)

1. Define Isoelectric point.
2. What are **dietary fibres**? Give examples.
3. Enlist various processes which are responsible for rancidity of lipids.
4. Write the chemical name of Vitamin **B1** & mention disorders related with Vitamin **B1** deficiency.
5. Define natural pigments with examples.
6. Give examples of thickening and jelling agents used in the food industry.
7. What is Vinegar? What is the use of vinegar?
8. What is the difference between butter and margarine?
9. Give examples of organophosphorus pesticides.
10. How ethanol is produced by fermentation process? Write only the major reaction & enzyme involved.