

QP CODE: 114329

Reg. No:.....

**First Semester M.Pharm Degree Regular/Supplementary Examinations
April 2025**

**M.Pharm (Pharmaceutical Analysis)
Paper IV - Food Analysis (MPA 104T)
(Common for 2019 and 2024 Scheme)**

Time: 3 Hours

Total Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

Essays

(3x10=30)

1. Classification of vitamins. Explain methods of determination of vitamin B₁₂
2. Define and classify lipids and write in detail about the general methods of analysis of lipids
3. What is vinegar chemically. Describe the variable methods employed for analyzing purity of vinegar.

Short Notes

(9x5=45)

4. Explain the methods of analysis of organophosphorus pesticides
5. Write briefly about US-FDA regulations of food products
6. Explain the various analytical methods employed for assuring the quality of butter
7. Method of detection of natural, permitted and non-permitted dyes
8. Explain the analytical methods for the estimation of carbohydrates in food
9. Write in detail about the analysis of preservatives and antioxidants in food products
10. Explain various analytical methods employed for assuring the quality of ice-cream
11. General methods of analysis of proteins and amino acids
12. List out the various food additives and explain about thickening and jelling agents
