

2021

B. Voc. (Food Processing and Preservation)  
Third Semester  
FPP-304: Food Analysis: Tools and Techniques

Time allowed: 3 Hours

Max. Marks: 40

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

I. Answer the following:-

- a) Gel filtration
- b) TEM
- c) LC-MS
- d) TLC Bacterial toxins in food (4x2)

**UNIT - I**

- II. a) Write a short note on the rheological properties of food.
- b) Explain the color measurement in different types of food. (2x4)
- III. What are the quantitative methods for microbial enumeration? (8)

**UNIT - II**

- IV. a) Discuss the principle and applications of Ion exchange chromatography.
- b) Describe the applications of Bright field microscopy. (2x4)
- V. Differentiate between Paper and Thin layer chromatography. (8)

**UNIT - III**

- VI. Write short notes on:-
  - a) Principle of Centrifugation
  - b) Applications of Electrophoresis (2x4)
- VII. How radiations are used to detect food constituents in raw and packaged food? (8)

**UNIT - IV**

- VIII. a) Explain the principle and technique of RT-PCR.
- b) Discuss the applications of HPLC. (2x4)
- IX. Describe the principle, technique and applications of Gas chromatography. (8)

x-x-x