

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 briefly:-

- a) GC-MS
- b) Dark Field microscopy
- c) Microbial enumeration
- d) Color measurement in food (4x2)

UNIT - I

- II. a) Write a short note on the thermal properties of foods.
- b) Explain: any one method for estimation of moisture and ash content in food. (2x4)
- III. Discuss the qualitative methods to isolate pathogenic microorganisms. (8)

UNIT - II

- IV. a) Discuss the applications of Ion Exchange chromatography.
- b) Discuss the principle of TEM. (2x4)
- V. Explain the working and applications of Fluorescent microscope. (8)

UNIT - III

- VI. Write short notes on:
 - a) Principle of Centrifugation
 - b) Application of Electrophoresis (2x4)
- VII. Discuss any one technique used for detection of contaminants and food constituents. (8)

UNIT - IV

- VIII. a) Describe the applications of Mass Spectrometry in food analysis.
- b) Discuss the principle of ELISA. (2x4)
- IX. Describe the principle and applications of RTPCR. (8)

x-x-x