

2032

B. Voc. (Food Processing and Preservation)
3rd Semester
FPP-304: Food Analysis: Tools and Techniques

Time allowed: 3 Hours

Max. Marks: 40

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

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I. Attempt the following:-

- (a) What is fortified milk?
- (b) What is SEM and TEM? Give one application of each.
- (c) Define electrophoresis and centrifugation.
- (d) What is ion exchange chromatography? (4×2)

UNIT – I

- II. (a) Discuss the water holding capacity of food items and its significance.
- (b) How color measurement is one in different types of food. (4+4)
- III. Explain the qualitative methods for microbial enumeration. (8)

UNIT – II

- IV. Discuss the principle and application of thin layer chromatography. (8)
- V. Describe the principle and application of Bright field microscopy. (8)

UNIT – III

- VI. How electrophoresis can be used to detect contaminants in food items? (8)
- VII. Write short notes on: -
 - (a) Radiations
 - (b) Filtration (4+4)

UNIT – IV

- VIII. What is LC-MS? Discuss in detail the role and application of HPLC in food analysis. (8)
- IX. Write a note on: -
 - (a) PCR
 - (b) ELISA (4+4)

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