Exam.Code:0091
Sub. Code: 1290

1125

B. Voc. (Food Processing and Preservation) First Semester

BFP-105: Food Analysis and Instrumentation

Time allowed: 3 Hours

Max. Marks: 60

NOTE: *Attempt five questions in all, including Question No. IX (Unit-V) which is compulsory and selecting one question each from Unit I - IV.*

x-x-x

UNIT- I

I. a) What precautions should be taken while storing food samples?

b) List the instruments used and principle involved in moisture estimation of different types of food samples. (2x6)

II. Describe the principle of-

a) Protein estimation.

b) Ascorbic acid estimation. (2x6)

UNIT- II

III. a) Describe colorimetry.

b) Describe various types of chromatographic techniques. (2x6)

IV. Explain the various atomizers that are used in atomic absorption spectroscopy. Give a few applications of AAS. (12)

UNIT- III

V. What is the principle of SEM? How can Electron Microscopy be used in analysis of food samples? (12)

VI. a) Is the use of x-rays in food analysis safe? Elaborate.

b) What are the various instruments used for colour measurement of food? (2x6)

UNIT- IV

VII. a) Explain the factors on which passage of light depends, while passing from one medium to the other. Give applications of Refractometry.

b) Discuss various components of a polarimeter. (2x6)

P.T.O.

VIII. Describe the following:-

a) Abbe's refractometer.

b) Rapid methods of microbial analysis. (2x6)

UNIT – V

IX. Write short notes on the following:-

a) The principle of PAGE

b) Universal detection reagents for paper chromatography

c) Retention factor

d) Refractive Index

e) Sample

f) Pesticides in food (6x2)

x-x-x