Exam.Code:1323
Sub. Code: 9571

1128

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. I which is compulsory and selecting one question from each Unit.*

x-x-x

I. Attempt the following:-

a) Name any two methods for detection of Rheological properties of food

b) Principle of Bright field microscopy

c) Application of electrophoresis in detection of pathogens in raw food

d) Describe the principle of RT-PCR (4x2)

UNIT – I

II. a) Describe the concept of water holding capacity for different food items and its significance?

b) Describe briefly any one method for detection of ash content in food. (4,4)

III. a) Discuss the methods used for enumeration of bacterial toxins in foods

b) Describe the quantitative methods used for enumeration of microbes in food sample. (4,4)

UNIT – II

IV. a) Define thin layer chromatography? Discuss its role in food analysis

b) Describe the principle of ion exchange chromatography and its application in food industry (4,4)

V. a) Differentiate between Scanning electron microscopy and Transmission electron microscopy.

b) Discuss the theory and application of fluorescent microscopy. (4,4)

P.T.O.

UNIT – III

VI. Describe centrifugation. What is the role of centrifugation in detection of contaminants in packaged food? (8)

VII. Define filtration? How radiations are used for enumeration of food constituents in raw food? (8)

UNIT – IV

VIII. Define ELISA? Discuss its types and applications in food sector? (8)

IX. Discuss the principle and application of Gas chromatography in food analysis? (8)

x-x-x