1012E1015   Candidate's Seat No :_____

B.Sc (Hons) FNS Sem.-5 Examination
FNS-314
Food Analysis

Time : 2-30 Hours]   December-2024   [Max. Marks : 70

Instructions: Illustrate your answers with neat diagrams wherever necessary.

Q. 1   Write the following

   (i)   What are roles of FSSAI and AOAC in food analysis? Explain in detail.   (7 Marks)
   (ii) What is standard solution? How to generate of calibration curve?   (7 Marks)

OR

   (i)   Explain PPM calculation and molarity with an example.   (7 Marks)
   (ii) Write short note on sampling techniques.   (7 Marks)

Q.2   Write the following

   (i)   Explain various types of Moisture analysis.   (7 Marks)

   (ii) Write short note on kjeldahl method.   (7 Marks)

OR

   (i)   Explain dry ashing and wet ashing techniques.   (7 Marks)

   (ii) Explain methods of estimating content of proteins in samples.   (7 Marks)

Q. 3   Write the following

   (i)   Explain all sample preparation methods of carbohydrate analysis.   (7 Marks)

   (ii) Write short note on solvent extraction method.   (7 Marks)

OR

   (i)   Write short note on fibre analysis.   (7 Marks)

   (ii) What are enzymatic and colorimetric methods of carbohydrate analysis.   (7 Marks)

Q. 4   Write the following

   (i)   Write short note on classifications of ANFs.   (7 Marks)

   (ii) Explain phytate and oxalate as antinutritional factors in detail.   (7 Marks)

OR

(P.T.O.)

(i) Write short note on tannin as antinutritional factor.   (7 Marks)

(ii) Explain extraction process of vitamins A, D, E and K.   (7 Marks)

Q. 5   Attempt any seven out of twelve   (14 Marks)

(i) What is role of FDA in food analysis? Explain.

(ii) Explain process of serial dilution.

(iii) What are indirect methods of moisture analysis?

(iv) Explain use of ninhydrin reagent.

(v) Explain difference direct and indirect food analysis.

(vi) Explain volumetric analysis method.

(vii) Which tool is used for RI measurement?

(viii) What is principle of dumas method.

(ix) What is role of calcium and phosphorous in human physiology?

(x) What is definition of antinutritional factor? Give examples.

(xi) How antivitamins work? Give examples.

(xii) What is "sweet clover disease?" it is associated with which vitamin?