

B

M. Sc. (Semester-III) Examination December-2016
Paper-XI Applied Analytical Chemistry-I Code: 3499

Time: 2.5 hours

Marks: 70

All questions carry equal marks

- Q-1** (i) Give Legal classification of drugs. 14
(ii) How will you determine the content of Ibuprofen Tablets?
(iii) Define the word "LOQ" "LOD" and "LD₅₀" in brief.
- OR**
- Q-1** (i) How will you determine Isoniazid as a pure compound? 14
(ii) Explain mechanism of Procaine and Signal Transduction for drug action.
(iii) How will you determine Trimethoprim content?
- Q-2** (i) List various official methods used for food analysis. Give an idea 14
about the sampling technique in food analysis.
(ii) What is proximate analysis? Explain function of acid in food content.
(iii) How will you determine Chloride content and treatable acidity of food sample?
- OR**
- Q-2** (i) Give estimation method for the determination of monochrotophos from wheat 14
sample.
(ii) List six basic types of analysis that needed for food analysis. How will you determine the
moisture content by Karl Fisher method?
(iii) Write a short note on various forms of water bounded with food.
- Q-3** **Attempt any three of following questions** 14
(i) What are pesticides? Give classification of pesticide in detail.
(ii) Give brief account on "Role of pesticides as crop care chemicals"
(iii) How will you determine the organo-phosphorous pesticides from any food sample?
(iv) Explain the effect of pesticides on human health.
(v) How will you determine the amount of Chlorinated pesticides?
(vi) Give brief account of Maximum Residue Levels.
- Q-4** (i) Give classification of Soap and Detergent with suitable example. 14
(ii) Explain the four steps involved in the manufacturing of soap. Give general mechanism of
cleaning process of soap or detergent
- OR**
- Q-4** (i) Explain the importance of SV and IV methods. How will you determine the IV of 14
a detergent sample?
(ii) What do you mean by refractive index? Give method of estimation of RI of the Soap Sample.
- Q-5** (i) Give the types of various inorganic fertilizers with suitable example. 14
(ii) How will you determine the content of N, P and K from inorganic fertilizers?
- OR**
- Q-5** (i) How will you determine Na, K and NO₂ in the fertilizers? 14
(ii) Explain the role of organic fertilizer in soil fertility with suitable examples.