

M. Sc. (Semester-III) Examination December-2017
Paper-XI Applied Analytical Chemistry-I Code: 3499

Time: 2.5 hours

(CHEMISTRY)

Marks: 70

All questions carry equal marks

- Q-1** (i) Give the chemical method for the determination of % content of the following drugs from the tablet. (1) Ascorbic acid tablet (2) Trimethoprim **14**
(ii) How will you determine sulfa drug a pure compound?
(iii) Give general classification of drugs with suitable examples.
- OR**
- Q-1** (i) Explain detailed classification of drugs by legal controlled substance act. **14**
(ii) Describe various mechanisms of drug action and explain the mechanism of procaine
- Q-2** (i) List various methods for the determination of Total Nitrogen in the food sample. Explain KJELDAHL'S method in detail. **14**
(ii) What is carbohydrate? Give classification of carbohydrates. Give extraction method of carbohydrates from food.
- OR**
- Q-2** (i) Describe chemical method for the analysis of carbohydrates in food sample. **14**
(ii) How will you determine tannin in tealeaves and reducing sugar in honey?
- Q-3** (i) Show the significance of pesticide in the development of crop cultivation. **14**
(ii) How will you determine monochlorophos content in the pesticides mixture?
(iii) Give brief classification of pesticides with suitable example.
- OR**
- Q-3** (i) Discuss the method for the estimation of organo-chlorine pesticides. **14**
(ii) What do you mean by ADI, AR_d and MRL used in pesticides? Explain each term in brief.
(iii) Write a short note on effect of pesticides on human health.
- Q-4** (i) Give basic difference between soap and detergent. Classify the detergent with suitable illustration. **14**
(ii) Give general criteria for soap and detergent. Explain the cleaning mechanism of soap and detergent with appropriate example.
- OR**
- Q-4** (i) Give estimation method for the determination of P-number and K-number. **14**
(ii) What do you mean by R-M Value? Discuss the method for the determination of R-M Value from the Detergent sample.
- Q-5** (i) List various macro and micronutrients of soil with their limits. Write a short note on the organic fertilizers. **14**
(ii) Describe the method for the determination of Na and K from the inorganic fertilizer.
- OR**
- Q-5** (i) Give brief account of inorganic fertilizers with some selected examples **14**
(ii) How will you determine phosphate and nitrite in the fertilizers?