

Roll No.....

Total No. of Units : 04

Total No. of Printed Pages : 03

Code No. : 04/302

Fourth Semester Examination, May 2019

M.Sc. CHEMISTRY

Paper - III

ANALYTICAL CHEMISTRY

Time : 3 Hrs.

Max. Marks : 80

- Part A and B of each question in each unit consist of very short answer type questions which are to be answered in one or two sentences.
Part C (Short answer type) of each question should be answered in 200-250 words.
- Part D (Long answer type) of each question should be answered within the word limit 400-450.

Unit - I

Q.1 A. Define qualitative and quantitative analysis. (2)

Q.1 B. What is personal error? (2)

Q.1 C. What is the role of analytical chemistry in chemical research? (4)

OR

Explain erratic error.

Q.1 D. Describe the classification of methods of quantitative analysis. (12)

OR

Write the methods for reporting analytical data.

P.T.O.

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Unit - II

Q.2 A. Define Blood Urea. (2)

Q.2 B. Define Rf factor in blood. (2)

Q.2 C. What is blood gas analysis? (4)

OR

Write the classification of dangerous drugs.

Q.2 D. Write the estimation of albumin, globulin and alkaline phosphate. (12)

OR

Write the characteristics features of Narcotic drugs.

Unit - III

Q.3 A. What is the role of potassium in biological system? (2)

Q.3 B. Define Rf value. (2)

Q.3 C. How will you identify the pesticides in food by TLC method? (4)

OR

Explain the method of determination of phosphate by HPLC method.

Q.3 D. What is adulteration? Write the common adulterants in food. (12)

OR

Define pesticides and explain the various methods analysis of pesticides in food product.

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Unit - IV

Q.4 A. Why is net calorific value (NCV) less than the gross calorific value (GCV)? (2)

Q.4 B. Define tracer technique. (2)

Q.4 C. What is producer gas? How is it manufactured? Write the chemical reaction taking place in different zone. (4)

OR

Describe the function of proportional counter and ionization counter with chemical reaction.

Q.4 D. How will you determine the carbon and hydrogen in a given coal sample? Write its importance. (12)

OR

Describe the principle and application of neutron activation analysis.

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