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25-CH-44-A

**M.Sc. IV SEMESTER [MAIN/ATKT] EXAMINATION
MAY - JUNE 2025**

CHEMISTRY
Paper - IV
[Analytical Chemistry]

*[Max. Marks : 75]**[Time : 3:00 Hrs.]**[Min. Marks : 26]*

Note : Candidate should write his/her Roll Number at the prescribed space on the question paper.
Student should not write anything on question paper.
Attempt all five questions. Each question carries an internal choice.
Each question carries **15 marks**.

Q. 1 Discuss the following –

- i) Co precipitation and post precipitation.
- ii) Safety measures of handling the reagents in an analytical laboratory.

OR

- a) Define mean, median and standard deviation and list the example of each.
- b) Discuss the absolute error and relative error.

Q. 2 Explain the methods for analysis of crude protein and carbohydrate in food sample.

OR

Describe the experimental techniques to analyze and identify pesticide by Thin layer chromatography in food sample.

Q. 3 Discuss the following –

- i) Sources of water pollution.
- ii) Toxic effects of heavy metals.

OR

Explain the term COD, BOD and describe the method of measurement of COD in water sample.

Q. 4 Describe the method of determination of Phosphorous and Sulphur in soil sample

P.T.O.

OR

Define the Flash Point and Aniline Point and illustrate the method for determination of Aniline point of an Oil.

Q. 5 How will you estimate and interpret Blood Urea, Blood Urea Nitrogen (BUN) and Uric Acid in patient fluid sample.

OR

- a) Compare and contrast the effects of Narcotics and dangerous drugs.
- b) Use the Thin Layer Chromatography and identification of drugs in blood sample.

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