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24-PC-24

**M.Sc. II SEMESTER [MAIN/ATKT] EXAMINATION
JUNE - JULY 2024**

PHARMACEUTICAL CHEMISTRY

Paper - IV

[Pharmaceutical Analysis - II]

[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 five questions. Each question carries an internal choice.
Each question carries **15 marks**.

Q. 1 Discuss principle and technique of Thin Layer Chromatography. (15 Marks)

OR

Define Chromatography, its classification with applications in Pharmaceutical Analysis.

Q. 2 Describe principle and instrumentation of Ion Exchange Chromatography and its applications. (15 Marks)

OR

Discuss principle, instrumentation and applications of High Performance Liquid Chromatography.

Q. 3 Discuss the various techniques used to solvent extraction and its application. (15 Marks)

OR

Write notes on the following -

- i) Distribution law.
- ii) Factors favouring solvent extraction.
- iii) Applications of liquid - liquid extraction.

Q. 4 Describe the basic principle and method for determination of Biological Oxygen Demand (BOD) in water sample. Also explain the limitation of BOD. (15 Marks)

OR

P.T.O.

Write short notes on the following -

- i) Determination of calcium and magnesium.
- ii) Determination of Chemical Oxygen Demand (COD).

Q. 5 What is Nephelometry ? Discuss principle instrumentation and applications of Nephelometry. (15 Marks)

OR

Explain the following -

- i) Principle of Flame Photometry.
- ii) Instrumentation and application of flame photometry.

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