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**SUBJECT CODE NO: - FNP-6058**  
**FACULTY OF SCIENCE AND TECHNOLOGY**  
**MSC. F.Y.(SEM-I)(NEP Pattern-2023-2024) Herbal Tech.**  
**Examination November / December 2025**  
**Isolation and Separation Techniques-SAC105021T**

[Time:1:00 Hours]

[Max. Marks: 30]

N. B

Please check whether you have got the right question paper.

- i) Attempt all Questions.
- ii) All Questions carry equal marks.
- iii) Illustrate your answers with suitable diagrams wherever necessary.

**Q1** What is distillation? Explain the principle and theory of simple distillation and vacuum distillation. **10**

OR

What is chromatography? Explain the principle and techniques of gas chromatography

**Q2** What is solvent extraction? Explain the principle involved in solvent extraction and discuss the procedure of Batch extraction. **10**

OR

Describe the experimental details and Technique of High-performance Liquid Chromatography (HPLC).

**Q3** Write short notes on any two. **10**

- a) Batch-wise solvent extraction.
- b) Factors affecting column efficiency.
- c) Theories of chromatography.
- d) Vacuum distillation and its applications.

