

**Fifth Semester Examination for the Degree
of Bachelor of Pharmacy**

PHARMACOGNOSY AND PHYTOCHEMISTRY III

5 T 4

Time : Three Hours]

[Max. Marks : 80

- N. B. : (1) Question No. 1 is compulsory.
 (2) Solve any **four** questions from the remaining.
 (3) Draw neat labelled diagram wherever necessary.
 (4) Discuss the reaction, mechanism wherever necessary.

1. Solve any **five** of the following :—

- (a) Explain the concept of Maceration.
- (b) Differentiate between fixed oil and volatile oil.
- (c) Write a note on Tulsi.
- (d) Give physical and chemical properties of resins.
- (e) Write about method of preparation and chemical constituents of Asafoetida.
- (f) Give general principle and applications of ion exchange.
- (g) Explain the isolation procedure for citral.

5 × 4 = 20

2. (a) What do you mean by chromatography ? Describe the principle, procedure and documentation involved in high pressure liquid chromatography. 10

- (b) What is extraction ? Write a note on super critical fluid extraction. 5

3. (a) Write about classification methods, of extraction and evaluation of volatile oils. 8

- (b) Describe 'clove' under pharmacognostic scheme. 7

4. (a) Explain biosynthetic pathways and methods of extraction of resins. 7

- (b) Give a pharmacognostic account on Tolu Balsam and Peru Balsam. 8

5. Describe isolation, purification and chromatographic profiles of Eugenol and menthol. 15

6. Explain various steps involved in structural elucidation of camphor. 15

7. Write notes on any **three** of the following :—

- (a) Paper chromatography

- (b) Coriander and cinnamon

- (c) Myrrh and Benzoin

- (d) Structural elucidation of Taxol

- (e) Soxhlet extraction 5 × 3 = 15