

NTK/KW/15/6996

Faculty of Pharmacy

B.Pharm. Fifth Semester (C.B.S.) Examination

PHARMACOGNOSY AND PHYTOCHEMISTRY—III

(Chemistry of Natural Products)

Paper—IV (5-T-4)

Time—Three Hours]

[Full Marks—80

N.B. :— (1) Question No. 1 is compulsory.

- (2) Solve any **FOUR** questions from the remaining.
- (3) Draw neat labeled diagram wherever necessary.
- (4) Discuss the reaction, mechanism wherever necessary.

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

5×4=20

- (a) Write a note on theory of mass transfer.
- (b) Write mevalonic acid pathway for terpenoids.
- (c) Write method of extraction for resins from plant material.
- (d) Differentiate between Tolu Balsam and Peru Balsam.

- | | | |
|--|--|--------|
| (e) Write isolation and purification method for Camphor. | (b) Describe pharmacognostic account of clove with emphasis on its microscopy. | 7 |
| (f) Differentiate between transverse section of Caraway and Dill fruits. | 7. Write short notes (any three) : | 5×3=15 |
| (g) Write a note on Peppermint. | (a) Soxhlet extraction | |
| 2. Classify extraction method. Write an account on Super-critical fluid extraction and maceration. | (b) Colophony | |
| 15 | (c) Cinnamon | |
| 3. (a) What is chromatography ? Describe general principles of adsorption, ion-exchange and size-exclusion chromatography. | (d) Asafoetida | |
| 8 | (e) Boswellia. | |
| (b) Explain high performance liquid chromatography with well-labelled diagram. | | 7 |
| 4. (a) Classify resins and resin combinations with suitable examples. | | 8 |
| (b) Write pharmacognostic account of Fennel and Ginger. | | 7 |
| 5. (a) Write structural elucidation of camphor by physical methods. | | 8 |
| (b) Write isolation, purification and chromatographic profile of Eugenol. | | 7 |
| 6. (a) Write in brief about high performance thin layer chromatography method. | | 8 |