

KNT/KW/16/6567

B.Pharm. Fifth Semester (C.B.S.) Examination**PHARMACOGNOSY AND PHYTOCHEMISTRY—III (Chemistry of Natural Products)****Paper—4**

Time : Three Hours]

[Full Marks : 80

Note :—(1) Q. No. 1 is compulsory.(2) Attempt any **four** questions from the remaining.

(3) Draw neat labelled diagram wherever necessary.

1. Solve any **five** :

- (a) Describe the principle and procedure of paper chromatography.
- (b) Write a short note on Maceration.
- (c) Give biological source, chemical constituents and uses of caraway.
- (d) Differentiate between Tolu balsam and Peru balsam.
- (e) Define and classify resins with examples.
- (f) Write a note on theory of mass transfer.
- (g) Add a note on Benzoin.

5×4=20

- 2. (A) Define and classify volatile oil with example. Give the general extraction method for volatile oils. 8
- (B) Write Pharmacognostic account on Cinnamon bark. 7
- 3. (A) Give isolation, purification and chromatographic profiles for Eugenol. 8
- (B) Write a short note on High performance thin layer chromatography. 7
- 4. (A) Write structure elucidation of camphor. 8
- (B) Write pharmacognostic account of Eucalyptus. 7
- 5. Define chromatography. Enlist different chromatographic techniques. Write a detailed account on thin layer chromatography and its applications. 15

6. Give biological source, chemical constituents, chemical test and uses of the following (any **three**) :
- (a) Tulsi
 - (b) Ginger
 - (c) Clove
 - (d) Nutmeg
 - (e) Colophony. 5×3=15
7. Write short notes on (any **three**) :
- (a) Super critical fluid extraction
 - (b) Structure elucidation of Taxol
 - (c) Turmeric
 - (d) Asafoetida
 - (e) Fennel. 5×3=15