

B.Pharm. Semester–VI (C.B.S.) Examination
PHARMACOGNOSY AND PHYTOCHEMISTRY—IV

(Recent Advances in Phytochemistry)

Paper—4 (6T4)

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 labelled diagram wherever necessary.
- (4) Discuss the reaction, mechanism wherever necessary.
- (5) Use of electronic calculator is permitted.
- (6) Assume suitable data wherever necessary.

1. Solve any **five** questions :

- (a) How will you identify different species of Aloe ?
- (b) Give chemical tests for Digitalis.
- (c) Write a note on Rhubarb.
- (d) Add a precise note on cyanogenetic glycosides.
- (e) Give the biological source, chemical constituents and medicinal uses of Brhami.
- (f) Differentiate between Hydrolysable tannins and condensed tannins.
- (g) Write a note on Mysobalan. 4×5=20

2. Give Pharmacognostic account of Senna leaves. 15

3. (a) Differentiate between Cardenolides and Bufadenolides. Add a note on Digitalis. 10

(b) Give biogenetic pathway of cardiac glycosides. 5

4. Give extraction, isolation, purification and estimation of following phytoconstituents (any **two**) :
- (a) Aloin
 - (b) Bacosides
 - (c) Hesperidin. 7.5×2=15
5. What are glycosides ? Comment on their chemical nature. Describe the classification of glycosides with suitable examples. Give the general method of extraction of glycosides. 15
6. Give biological source, chemical constituents and medicinal uses of (any **three**) :
- (a) Quassia
 - (b) Liquorice
 - (c) Bahera
 - (d) Myrobalan
 - (e) Squill. 3×5=15
7. Write short notes on (any **three**) :
- (a) Isolation and therapeutic uses of Andrographolide
 - (b) Spectral studies of gallic acid
 - (c) Flavonoid glycosides
 - (d) Chemical tests for tannins
 - (e) Differentiate between Pale catechu and black catechu. 3×5=15