NRT/KS/19/3176

B.Pharm. Sixth Semester (CBS) Examination

PHARMACOGNOSY AND PHYTOCHEMISTRY–IV

(Recent Advances in Phytochemistry)

Paper—4

Time : Three Hours] [Maximum Marks : 80

N.B. :— (1) Question No. **1** is compulsory.
(2) Attempt any **four** questions out of remaining.
(3) All questions carry equal marks as indicated.
(4) Draw neat labelled diagram wherever necessary.

1. Solve any **five** of the following :
   (a) What are cardiac glycosides ? Differentiate between cardinolides and bufadienolides.
   (b) Write a note on Ashoka Bark.
   (c) Differentiate between pale catechu and black catechu.
   (d) What are bitters ? Give biological source, chemical constituents and medicinal uses of Quassia.
   (e) What are cyanogenetic glycosides ? Give the biological source, chemical constituents and medicinal uses of bitter almonds.
   (f) Write a note on Arjuna.
   (g) What are flavonoid glycosides ? Give their classification with examples. 5×4=20
2. (a) What are tannins ? Classify them with suitable examples. Describe the general methods of extraction of tannins. 8
   (b) Give the procedure for isolation and purification of andrographolide. Comment on its therapeutic uses. 7
3. (a) Describe the procedure for extraction, purification and estimation of Aloin **or** Bacosides. 8
   (b) Give a pharmacognostic account of Senna. 7
4. What are glycosides ? Describe the classification, chemical tests and general methods of extraction of glycosides. 15
5. (a) Give various chemical tests and therapeutic uses of tannins. 8
   (b) Give the spectral studies of any **one** of the following :
      (i) Andrographolide
      (ii) Gallic acid. 7
6. Give the biological source, chemical constituents and uses of (any **three**) :
   (a) Liquorice
   (b) Amla
   (c) Brahmi
   (d) Myrobalan
   (e) Shatavari. 5×3=15
7. Write short notes on (any **three**) :
   (a) Anthraquinone glycosides
   (b) Isolation and purification of diosgenin
   (c) Hesperidin
   (d) Chemical tests for digitalis
   (e) Isothiocyanate glycosides. 5×3=15