

Sem. VI (CBSSGS) PP-I 09/11/15

QP Code : 21710

(3 Hours)

[Total Marks :70

- N.B. :** (1) All questions are **compulsory**.
(2) **Illustrate** answers with sketches and structures wherever **required**.
(3) **Answers** to subquestions must be written **together**.

1. (a) Justify the following statements with significant reasons or examples (any seven) : 7

- (i) Dried juice is an example of unorganised drug.
- (ii) Umbel is a type of cymose inflorescence.
- (iii) Glycosides are secondary metabolites of plant.
- (iv) Counter-current method of extraction is advantageous for thermolabile substances.
- (v) Stomatal index is more reliable as compared to stomatal number in quantitative microscopy of crude drugs.
- (vi) Adulteration in honey is determined by Fiehe's test.
- (vii) Accidental swallowing of Abrus seeds shows toxic symptoms.
- (viii) Dibbling is a method used for sowing of seeds.

(b) Answer the following : 8

- (i) Draw neat labelled diagram describing the histology of an isobilateral leaf.
- (ii) Give two examples of terpene class of phytoconstituents with structures and its therapeutic application.
- (iii) Write a note on auxins as plant growth regulator.
- (iv) Discuss the source, preparation and commercial utility of chitin.

2. (i) Give the significance of pharmacognosy in Ayurvedic or Homeopathic System of medicine with two examples of drugs. 3

- (ii) Give the classification of fruits with examples of each class. 4
- (iii) Write a detailed note on galactomannan. 4

3. (i) Discuss supercritical fluid extraction with any two commercial applications. 3

- (ii) Discuss the chemical method of evaluation of DONO with respect to pharmacopoeia 4
- (iii) Write a note on cellulosic fibres. 4

4. (i) Compare and contrast taxonomical and chemotaxonomical methods of classification of DONO. 3
- (ii) "Good quality of drugs can be maintained if they are stored properly." 4
Explain the statement with 4-5 examples.
- (iii) Write in detail about general methods of extraction for alkaloids with the underlying principles. 4
5. (i) Write a note on agar as a carbohydrate source : 3
- (ii) Write in detail about adulteration and substitution of crude drugs with four examples. 4
- (iii) What are ergastic cell contents ? Discuss calcium oxalate crystals in detail. 4
6. (i) Discuss the endogenous factors affecting the quality of crude drugs. 3
- (ii) Explain the sources, preparation and uses of plant proteolytic enzymes. 4
- (iii) Enumerate the biosynthetic pathway for production of phenolic compounds. 4