

BACHELOR OF PHARMACY (B. PHARM.) (CBCS-2019 COURSE)

B. Pharm. Sem-V :SUMMER- 2022

SUBJECT : PHARMACOGNOSY & PHYTOCHEMISTRY-II

Day : Monday

Time : 10:00 AM-01:00 PM

Date : 22-08-2022

S-20678-2022

Max. Marks : 75

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Answer to both section should be written in **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

SECTION – I

Q.1 Answer all questions **(20)**

- a) The chemical responsible for sweet order in fennel.
i) Fancone
ii) Antheole
iii) Chavicol
iv) Eugenol
- b) Most of the indole alkaloids in plant are synthesized from
i) Benzoic acid
ii) Meconic acid
iii) Tryptophan
iv) Ornithine
- c) Vittae are related to
i) Volatile oil
ii) Yellow matter
iii) Fatty oil
iv) Alleurone grains
- d) Give the botanical source of colophony
i) *Pinus palustris*
ii) *Ferula foetida*
iii) *Allium sativum*
iv) *Hyoscyamus muticus*
- e) Citrus oils can be extracted by
i) Enflurage method
ii) Distillation method
iii) Eculic method
iv) Percolation
- f) Name of Biosynthetic pathway for Indole alkaloids
i) Shikimic acid pathway
ii) Acetate mevalovate pathway
iii) Acetate melonate pathway
iv) Amino acid pathway
- g) Generally clove is adulterated with
i) Mother clove
ii) Clove stalks
iii) Father clove
iv) Mother clove and clove stalks
- h) Yam is synonym for
i) Glycerrhiza
ii) Dioscorea
iii) Digitalis
iv) Colophony
- i) Example of phenanthrine alkaloid
i) Morphine
ii) Ephedrine
iii) Colchicine
iv) Quinoline
- j) Ellipsoidal schizolysigenous oil glands are present in
i) Coriander
ii) Clove
iii) Connamon
iv) Fennel

P.T.O.

- Q.2** Answer any **TWO** from the following **THREE** $2 \times 10 = 20$ (20)
- a) Explain the biosynthesis of secondary basic metabolites in higher plants. Describe the Shikmic Acid pathway in detail.
 - b) Discuss the chemistry & chemical classes of Glycosides. Give the therapeutic uses and commercial applications of Senna.
 - c) Why extraction is required. Explain modern methods of extractions and application of chromatography in the isolation, purification and identification of crude drugs.

SECTION - II

- Q.3** Answer any **SEVEN** from the following **NINE** $7 \times 5 = 35$ 35
- a) Isolation, Identification and Analysis of Podophylotoxin.
 - b) Discuss the industrial production and estimation of Atropine.
 - c) Describe the utilization of radioactive isotopes in the investigation of biogenetic studies.
 - d) Give the chemistry, therapeutic uses and commercial applications Curcumin.
 - e) Explain the isolation, identification and analysis of Glycyrrhetic acid.
 - f) Write a note on Artemisia, its therapeutic uses and industrial production.
 - g) Highlight the chemistry, therapeutic uses and commercial application of Opium.
 - h) Explain Digitalis and give its biosources, therapeutic uses and commercial applications.
 - i) Discuss Cinchona alkaloids, give their therapeutic uses and industrial production.

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