

Paper Id: 

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**B. PHARM**  
**(SEM VII) THEORY EXAMINATION 2019-20**  
**PHARACOGNOSY-IV**

**Time: 3 Hours****Total Marks: 70****Note: 1.** Attempt all Sections and assume any missing data.**SECTION A**

- 1. Attempt all questions in brief.** **2 x 7 = 14**
- (a) Draw the Chemical structure of Sennoside A.
  - (b) Define Totipotency?
  - (c) Give the biological source of Strychnine and Reserpine containing crude drugs.
  - (d) Define explants? Write down common sterilizing reagents for explants.
  - (e) Precursors for Isoquinoline, Quinoline, Tropane and Indole alkaloids.
  - (f) Define True alkaloid and Proto-alkaloids with suitable examples.
  - (g) Write a note on Vitali-morin test.

**SECTION B**

- 2. Attempt any three of the following:** **7 x 3 = 21**
- (a) Discuss in detail with Pharmacognostic profile along with the cultivation and collection of Opium.
  - (b) Write down the Complete Pharmacognosy of Ergot with their life cycle in detail.
  - (c) What is alkaloid? Classify the alkaloids according to chemical structure along with suitable examples.
  - (d) Define Plant Tissue Culture? Enumerate the application of Plant Tissue Culture in Pharmacognosy.
  - (e) Write in detail for the quality control of herbal drugs with the help of HPTLC chromatographic fingerprinting techniques.

**SECTION C**

- 3. Attempt any one part of the following:** **7 x 1 = 7**
- (a) Write a note on Purine alkaloids. Explain in detail with their example.
  - (b) Write a note on Pharmacokinetic and Pharmacodynamic Herbal Drug Interaction. Explain with examples.
- 4. Attempt any one part of the following:** **7 x 1 = 7**
- (a) Explain Macroscopic, Microscopic and other Pharmacognostic details of Datura leaves.
  - (b) Write a note herbal bio-enhancer. Explain with examples.
- 5. Attempt any one part of the following:** **7 x 1 = 7**
- (a) Enumerate Production and utilization of Tropane alkaloids. Explain briefly
  - (b) Write the production and utilization of Quinoline alkaloids.
- 6. Attempt any one part of the following:** **7 x 1 = 7**
- (a) Discuss in detail with examples
    - I. Imidazole
    - II. Isoquinoline
  - (b) Give a brief account of following moiety and support your answer with example.
    - I. Quinazoline
    - II. Amino alkaloid
- 7. Attempt any one part of the following:** **7 x 1 = 7**
- (a) Classify PTC techniques? Write a note on Suspension Culture with a schematic diagram.
  - (b) Give an account of Nutritional requirements, growth & maintenance of Plant Tissue Culture.