

Ref. No.: Ex/Pharm/T/414/2019 (Old)

B. Pharm. 4<sup>th</sup> Year, 1<sup>st</sup> Semester Examination 2019 (Old)

Subject: Pharmacognosy II

Time: Three Hours

Full Marks: 100

(Answer any five questions taking at least two from each group)

Group A

1. Define chromatography. What are the different modes of separation in chromatography? Discuss gradient and isocratic elution process in column chromatography. Describe 2D separation process in planer chromatography. What is bioautography? Discuss the cation and anion exchange process in ion exchange chromatography. What is the principle of separation in paper chromatography?  
 $2 + 2 + 2 + 2 + 2 + 8 + 2 = 20$
2. Discuss the role of oxidative free radicals in the pathogenic cell signaling. Write down the role of different herbs in health promotion. Write down the chemical tests for Quinidine, Physostigmine, Ephedrine, and Caffeine.  
 $6 + 10 + 4 = 20$
3. Describe the morphological and microscopic features of Rauwolfia root and Nux-vomica seed. Write down the thorough pharmacognostic profile of Ergot. Define pseudo-alkaloids with suitable examples.  
 $(5 \times 2) + 7 + 3 = 20$
4. Write notes on
  - a) Isolation of alkaloids from crude extract
  - b) Chemical tests of Opium alkaloids
  - c) Microscopic features of Cinchona bark
  - d) Gel chromatography $6 + 3 + 5 + 6 = 20$

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Name of the Examinations: B. PHARMACY FOURTH YEAR FIRST SEMESTER (Old) – 2019

Subject : PHARMACOGNOSY-II

Time : Three hours

Full Marks : 100

**GROUP - B**

Instructions: Answer any five questions, taking at least two from each group.

5. What is drug adulteration? Explain the various way of drug adulteration generally adopted in case of crude drug for various purpose. 20
6. Give a general outline regarding the distribution of glycoside in nature. Mention the source, chemical constituents and uses of important glycosides useful for the treatment of human ailments. 20
7. Write notes on : a) Evaluation of antidiabetic activity of plant extract  
b) Thin Layer Chromatographic characterization of plant extract 20