

**B PHARM**  
**(SEM V) THEORY EXAMINATION 2022-23**  
**PHARMACOGNOSY-II**

*Time: 3 Hours**Total Marks: 75***Note:** Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

**1. Attempt all questions in brief. 2 x 10 = 20**

- (a) Differentiate between primary and secondary metabolites with suitable examples.
- (b) Give biosynthetic flow of production of various primary and secondary metabolites.
- (c) Discuss chemical constituents and uses of asafetida.
- (d) What is the therapeutic significance of ginger?
- (e) Explain Stas-otto method for extraction.
- (f) Discuss physico-chemical properties of resins.
- (g) What is the biological source and uses of artemisinin?
- (h) Give chemical identification test of digoxin.
- (i) Explain decoction process of extraction.
- (j) What do you mean by theoretical plates in chromatography?

**SECTION B**

**2. Attempt any two parts of the following: 10 x 2 = 20**

- (a) Discuss shikimic acid pathway with its significance in biogenesis.
- (b) Discuss complete pharmacognosy of opium and digitalis.
- (c) Elaborate various chromatographic techniques with their significance. What is herbal fingerprinting?

**SECTION C**

**3. Attempt any five parts of the following: 7 x 5 = 35**

- (a) Write a note on the application of radioactivity in the investigation of biogenetic pathway.
- (b) Discuss biological source, chemical constituents and uses of belladonna. Give extraction of atropine.
- (c) Write a note on application of various spectroscopic techniques in identification of crude drugs.
- (d) Explore industrial production, estimation and utilization of Sennosides.
- (e) Discuss biological source, chemical constituents, uses of ruta, and citral extraction.
- (f) Discuss industrial production, estimation and utilization of Podophyllotoxin.
- (g) Discuss biological source, chemical constituents, uses of Rauwolfia, and Reserpine extraction.