

**SEMESTER EXAMINATION-2022**  
**CLASS: B. PHARMA V SEM**  
**SUBJECT: PHARMACOGNOSY & PHYTOCHEMISTRY-II**  
**PAPER CODE: BP504T**

Time: 3 hour

Max. Marks: 75

Min. Pass: 50 %

**Note: Question paper is divided in two part A and B, attempt both parts as per given instructions.**

**Section – A**

**This section contains TEN questions each question carries SEVEN marks, attempt any FIVE questions.**

- Q. 1** What are primary and secondary metabolites, write significance of secondary metabolites.
- Q. 2** Briefly describe Shikimic acid pathway.
- Q. 3** Describe Acetate pathway briefly.
- Q. 4** Discuss the role of radioactive isotopes for the investigation of secondary metabolites.
- Q. 5** Give biological source, chemical constituents and uses of Opium and Liquorice.
- Q. 6** Describe different sources and applications of Caffeine and Citral
- Q. 7** Write source, chemical constituents, chemical tests and applications of Digitalis and Aloe.
- Q. 8** Describe the biosynthesis of alkaloids derived from Ornithine.
- Q. 9** Write the method of extraction isolation and evaluation of Glycyrrhetic acid.
- Q. 10** What is Geiger Muller counter, give its methodology and applications.

**Section – B**

**This section contains EIGHT questions each question carries TEN marks, attempt any FOUR questions.**

- Q. 1** Describe the formation of Alkaloid derived from Tryptophan in detail.
- Q. 2** Give detail pharmacognosy of Clove and Rauwolfia.
- Q. 3** Write an essay on the industrial production, estimation and utilization for Caffeine and Taxol.
- Q. 4** Describe method of isolation and analysis of Quinine and Menthol.
- Q. 5** Give composition, chemistry, method of extraction & analysis, Biosource and commercial applications of Asafoetida and Opium.
- Q. 6** What is difference between conventional and modern methods of extraction, briefly describe any two methods of both types.
- Q. 7** Define chromatography, give details of paper chromatography with its applications.
- Q. 8** Describe principle methodology and applications of infrared spectroscopy.