**B.Pharm 5th Semester Examination**

**Subject-Pharmacognosy and Phytochemistry-II (BP504T)**

 **Full mark- 75 Time – 3 hours**

 **Answer all the questions.**

**1. Answer all (10x2=20)**

**(a) Name the stable isotopes which are generally utilized in the investigation of biogenetic studies.**

**(b) Name the starting compounds of Shikimic acid pathway.**

**(c) Give the biological source of Opium.**

**(d) Write the general properties of Tannins.**

**(e) Give the biological source of Colophony.**

**(f) Write the chemical test of Senna.**

**(g) Give the utilization of Artemisinin.**

**(h) Give the utilization of Caffeine.**

**(i) Name the chromatographic techniques which are employed in phytochemical analysis.**

**(J) What do you mean by Iridoids?**

**2. Answer any two questions. (2 x 10=20)**

**(a) Enumerate the pathway for biosynthesis of aromatic compounds and fatty acids.**

**(b) Describe the general properties of Glycosides and detail Pharmacognostic features of Aloes.**

**(c) Discuss the source and industrial production of Diosgenin and Atropine.**

**3. Answer any seven questions. (7x5=35)**

**(a) How the labelled compounds are introduced into the plant during biogenetic studies?**

**(b) Discuss the importance of grafting methods in biogenetic studies with suitable examples.**

**(c) Give the biological source, chemical constituents and uses of Belladonna.**

**(d) Write short-note on Flavonoids.**

**(e) Give the biological source, morphological, microscopical characters and uses of Clove.**

**(f) Write short-note on electrophoresis.**

**(g) Discuss the various spectroscopic techniques used in phytochemical analysis.**

**(h) Differentiate steroids and triterpenoids.**

**(i) Give the method of estimation and utilization of Taxol.**