

GUJARAT TECHNOLOGICAL UNIVERSITY
B. PHARM (SEMESTER-5) (Old Syllabus) SUMMER-2015

Subject code: 250006**Date: 08/05/2015****Subject Name: Pharmacognosy- IV****Time: 2:30 pm to 5:30 pm****Total Marks: 80****Instructions:**

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

- Q.1** (a) Write the chemical classification of alkaloids with suitable examples. **06**
(b) Explain the importance of alkaloids in plants. **05**
(c) Give the biosynthetic pathway for synthesis of any one purine alkaloid. **05**
- Q.2** (a) Give chemical evaluation of alkaloids with examples. **06**
(b) Draw well labeled morphology diterpene alkaloid containing drug. Write the uses also. **05**
(c) Write the biosynthesis of any one indole alkaloid. **05**
- Q.3** (a) Give the complete biosynthetic pathway of saturated fatty acid. **06**
(b) Enumerate techniques used for studying biosynthetic pathways and write a short note on any one. **05**
(c) Discuss the methods for incorporation of radiolabelled substances in plant. **05**
- Q.4** (a) Explain the terms: geometrical isomerism, cis-trans isomerism and meso forms giving examples of natural product. **06**
(b) What is the importance of stereochemistry in natural product chemistry? Explain giving example. **05**
(c) Write a note on imidazole alkaloid containing drug. **05**
- Q.5** (a) Give the biological source and uses of the following: **06**
 i) Emetine
 ii) Morphine
 iii) Brucine
(b) Write a note on cultivation and collection of opium in India. **05**
(c) Write a note on saprophytic production of ergot. **05**
- Q. 6** (a) Give the morphological and microscopical difference between two species of ephedra. **06**
(b) Write the biological source, chemical constituents and uses of; **05**
 i) Ipecacuanha
 ii) Kurchi
(c) Draw well labeled diagram of the transverse section and surface preparation of Vasaka leaf. **05**
- Q.7** (a) Write the biological source, main chemical constituents and uses of : **06**
 i) Tea
 ii) Coca
(b) Write a pharmacognostical note on Rauwolfia. **05**
(c) Write a note on adulterants of Nux-vomica. **05**
