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

Date: 08/05/2015

Subject code: 250006 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** Write the chemical classification of alkaloids with suitable examples. 06 (a) Explain the importance of alkaloids in plants. (b) 05 Give the biosynthetic pathway for synthesis of any one purine alkaloid. (c) 05 **Q.2** Give chemical evaluation of alkaloids with examples. 06 (a) Draw well labeled morphology diterpene alkaloid containing drug. Write the uses (b) 05 also. Write the biosynthesis of any one indole alkaloid. 05 (c) **Q.3** Give the complete biosynthetic pathway of saturated fatty acid. 06 (a) Enumerate techniques used for studying biosynthetic pathways and write a short 05 (b) note on any one. Discuss the methods for incorporation of radiolabelled substances in plant. (c) 05 **Q.4** Explain the terms: geometrical isomerism, cis-trans isomerism and meso forms 06 (a) giving examples of natural product. What is the importance of stereochemistry in natural product chemistry? Explain (b) 05 giving example. Write a note on imidazole alkaloid containing drug. 05 (c) **Q.5** Give the biological source and uses of the following: **06** (a) i) Emetine ii) Morphine iii) Brucine Write a note on cultivation and collection of opium in India. (b) 05 Write a note on saprophytic production of ergot. (c) 05 **Q.** 6 Give the morphological and microscopical difference between two species of 06 (a) Write the biological source, chemical constituents and uses of; 05 (b) i) Ipecacuanha ii) Kurchi Draw well labeled diagram of the transverse section and surface preparation of 05 (c) Vasaka leaf. **Q.7** Write the biological source, main chemical constituents and uses of: 06 (a) i) Tea ii) Coca Write a pharmacognostical note on Rauwolfia. 05 (b) Write a note on adulterants of Nux-vomica. 05 (c) \*\*\*\*\*\*