

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.**

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|-------------|--|-----------|
| 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:
i) Emetine
ii) Morphine
iii) Brucine | 06 |
| | (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;
i) Ipecacuanha
ii) Kurchi | 05 |
| | (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 :
i) Tea
ii) Coca | 06 |
| | (b) Write a pharmacognostical note on Rauwolfia. | 05 |
| | (c) Write a note on adulterants of Nux-vomica. | 05 |
