

GUJARAT TECHNOLOGICAL UNIVERSITY**B.PHARM. - SEMESTER- V • EXAMINATION – SUMMER-2016****Subject Code: 250006****Date: 12/05/2016****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) Discuss life cycle of Ergot | 06 |
| | (b) Give specific chemical test and commercial importance of ergot alkaloids. | 05 |
| | (c) Give source, cultivation and collection method for opium alkaloids. | 05 |
| Q.2 | (a) Define alkaloids. Classify alkaloids with suitable examples in each class. | 06 |
| | (b) Write a note on nux-vomica and its adulterants. | 05 |
| | (c) Describe chemistry and pharmacological activity of reserpine. | 05 |
| Q.3 | (a) Discuss the Shikkinic acid pathway in detail. | 06 |
| | (b) Write brief note on Tracer-technique | 05 |
| | (c) Give the importance of the study of biogenetic pathway for secondary metabolites. | 05 |
| Q.4 | (a) Give pharmacognosy of Coffee and describe procedure for isolation of caffeine | 06 |
| | (b) Explain stereo-isomerism with natural product examples. | 05 |
| | (c) What are the Purins derivatives? Explain with example. | 05 |
| Q.5 | (a) Name the precursors for biogenesis of indole alkaloids and write the biogenetic pathway for synthesis of reserpine. | 06 |
| | (b) Write a note on Vinca alkaloids and their semi-synthetic derivatives. | 05 |
| | (c) Give different varieties of Tobacco in India. Explain method of cultivation of it. | 05 |
| Q. 6 | (a) Enlist Tropane Alkaloids and write Pharmacognostic profile of any one drug contain it | 06 |
| | (b) Describe pharmacognosy of drug having anti-malarial activity | 05 |
| | (c) Write a brief note on Indian Ephedra | 05 |
| Q.7 | (a) Differentiate between two species of alkaloidal amine containing drug used as bronchodilator. | 06 |
| | (b) Differentiate between <i>Hyoscyamus niger</i> and <i>Hyoscyamus muticus</i> . | 05 |
| | (c) Explain the morphology and microscopy of vasaka leaf and draw well labelled diagrams. | 05 |
