

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. – SEMESTER – I • EXAMINATION – WINTER • 2014

Subject Code: 910105

Date: 07-01-2015

Subject Name: Chemistry of Medicinal Natural Products

Time: 10:30 am - 01:30 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) | Enlist anticancer naturally occurring chemical compounds. Explain isolation and purification of vinca alkaloids. | 06 |
| | (b) | Give stereochemistry of podophyllotoxin. | 05 |
| | (c) | Write biogenesis of sennosides. | 05 |
| Q.2 | (a) | What are various methods of obtaining volatile oils and lipids? Elaborate one method of each component. | 06 |
| | (b) | Explain microwave assisted extraction method. | 05 |
| | (c) | Describe technique and merits of Supercritical Fluid extraction. | 05 |
| Q.3 | (a) | Discuss important steps involved in commercial production of streptomycin. | 06 |
| | (b) | Write note on naturally occurring anti-fungal agents. | 05 |
| | (c) | Write biogenesis of Penicillins. | 05 |
| Q.4 | (a) | Enlist advanced methods of extraction of plant metabolites. Explain flash chromatography. | 06 |
| | (b) | Describe in brief autocoids. | 05 |
| | (c) | Explain various chemical constants of fixed oil. | 05 |
| Q.5 | (a) | Outline the salient feature of importance of glycosaminoglycans. | 06 |
| | (b) | Expatiate the terminology "Immunoglobins as Plantbiotics" | 05 |
| | (c) | What is meant by lipoprotein? What is their biological significance? | 05 |
| Q. 6 | (a) | Explain biogenesis of an alkaloid derived from tryptophan. | 06 |
| | (b) | Write in brief on Calanolides. | 05 |
| | (c) | Discuss biological sources & biological activity of Taxol & its precursors. | 05 |
| Q.7 | (a) | Enumerate different biogenetic pathway of therapeutic important constituents. Elaborate any one of them. | 06 |
| | (b) | Explain isolation and purification of Taxol in plant drug. | 05 |
| | (c) | Write note on Mucopolysaccharides. | 05 |
