

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharmacy Sem-I Regular / Remedial Examination January/February 2011

Subject code: 910105

Subject Name: Chemistry of Medicinal Natural Products

Date: 31 /01 /2011

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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|------------|---|-----------|
| <b>Q.1</b> | (a) Explain the microwave assisted extraction method for herbal drugs.              | <b>06</b> |
|            | (b) Give importance of HPTLC and HPLC in herbal drug extraction.                    | <b>05</b> |
|            | (c) Write brief account on plant immunoglobulins.                                   | <b>05</b> |
| <b>Q.2</b> | (a) Discuss super critical fluid extraction method.                                 | <b>06</b> |
|            | (b) Describe pressurized fluid extraction method for herbal drug extraction.        | <b>05</b> |
|            | (c) Explain the C-3 cycle of photosynthesis.  | <b>05</b> |
| <b>Q.3</b> | (a) Define photosynthesis and write on light cycle of photosynthesis.               | <b>06</b> |
|            | (b) Briefly write on tracer technique.  | <b>05</b> |
|            | (c) Give biosynthetic pathway for monoterpenoids.                                   | <b>05</b> |
| <b>Q.4</b> | (a) Give brief outline of Shikimic acid pathway.                                    | <b>06</b> |
|            | (b) Classify glycosides. Write isolation methods for glycosidal drugs.              | <b>05</b> |
|            | (c) Write on isolation and pharmacological importance of alkaloid containing drugs. | <b>05</b> |
| <b>Q.5</b> | (a) Classify antibiotics. Write on structure elucidation of penicillin.             | <b>06</b> |
|            | (b) Describe stereochemistry and biological activity of taxol.                      | <b>05</b> |
|            | (c) Explain stereochemistry of lipids giving suitable examples.                     | <b>05</b> |
| <b>Q.6</b> | (a) Describe classification and biological significance of carbohydrates.           | <b>06</b> |
|            | (b) Describe stereochemistry of glycoprotein giving suitable examples.              | <b>05</b> |
|            | (c) Write on isolation and biological activity of glycyrrhetic acid.                | <b>05</b> |
| <b>Q.7</b> | (a) Give isolation and structure elucidation of vincristine.                        | <b>06</b> |
|            | (b) Illustrate biological significance of gresiofulvin and streptomycin             | <b>05</b> |
|            | (c) Write a brief note on autacoids   | <b>05</b> |

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