

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. – SEMESTER – VI • EXAMINATION – WINTER • 2014

Subject Code: 260006

Date: 03-01-2015

Subject Name: Pharmacognosy – V (Plant Bio Technology)

Time: 02:30 pm - 05:30 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) Describe protoplast fusion for Plant Tissue Culture. | 06 |
| | (b) Explain cellular totipotency. | 05 |
| | (c) Explain Suspension culture and its applications. | 05 |
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| Q.2 | (a) Describe culture medium and its importance in plant growth. | 06 |
| | (b) Discuss anther and pollen culture with suitable examples. | 05 |
| | (c) Describe laboratory requirement for plant tissue culture laboratory. | 05 |
| | | |
| Q.3 | (a) Briefly describe Pharmacognosy of Arjuna. | 06 |
| | (b) Write common name, chemical constituents, uses and marketed formulations of Apamarg or Shilagrit. | 05 |
| | (c) Describe biological source, family, chemical constituents, uses and marketed formulations of Satavari. | 05 |
| | | |
| Q.4 | (a) Write short note on pharmacognosy of Lal Karen & Peeli Karen. | 06 |
| | (b) Describe botanical name, chemical constituents with chemical structure, pharmacology and traditional uses of Adusa. | 05 |
| | (c) Write common name, biological source, chemical constituent, pharmacology and uses of Eclipta or Dhataki pushpa. | 05 |
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| Q.5 | (a) Write short note on Herb as a health food. Discuss at least three suitable drugs examples used as health food. | 06 |
| | (b) Write botanical name, family, part used, chemical constituents and uses of Galo or Chakramadu. | 05 |
| | (c) Write common name, biological source, chemical constituents, uses and marketed formulations of Amla or Chitrak. | 05 |
| | | |
| Q.6 | (a) Describe schematically biosynthetic route of Mevalonate pathway to Isopentenyl diphosphate. | 06 |
| | (b) Define & classify terpenoids with suitable examples and chemical structure. | 05 |
| | (c) Write biogenesis of Geraniol or β -Amyrin with chemical structure. | 05 |
| | | |
| Q.7 | (a) Describe occurrences and general properties of terpenoids with suitable examples. | 06 |
| | (b) Discuss chemistry and structure elucidation of Menthone or Carvone. | 05 |
| | (c) Write chemistry & biogenesis of Vitamin A or Abietic acid with chemical structure. | 05 |
