

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B. Pharm. – SEMESTER – VI • EXAMINATION – WINTER • 2016**

**Subject Code: 260006**

**Date: 26-10-2016**

**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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|------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>Q.1</b> | (a) | Illustrate the important microscopic feature of Galo stem and add a note on its market formulation.                                                                    | <b>06</b> |
|            | (b) | Write biological source, family, morphology, chemical constituents and marketed formulation of Kalijiri fruit.                                                         | <b>05</b> |
|            | (c) | Explain chemistry and Biogenesis of Abietic acid.                                                                                                                      | <b>05</b> |
| <b>Q.2</b> | (a) | Describe microscopic characteristic of Chitrak root and draw its well labeled diagram of transverse section along with its main active chemical constituents and uses. | <b>06</b> |
|            | (b) | Write detail Pharmacognosy of drug used as hepatoprotective.                                                                                                           | <b>05</b> |
|            | (c) | Write detail note on PUFA (poly unsaturated fatty acids).                                                                                                              | <b>05</b> |
| <b>Q.3</b> | (a) | Describe a cardiogenic leaf drug described in traditional text and included in your syllabus.                                                                          | <b>06</b> |
|            | (b) | Explain chemistry and Biogenesis of $\beta$ -amyrin.                                                                                                                   | <b>05</b> |
|            | (c) | Write in short about Dhatakupushpa.                                                                                                                                    | <b>05</b> |
| <b>Q.4</b> | (a) | Explain preparation and sterilization of explants in Plant Tissue culture.                                                                                             | <b>06</b> |
|            | (b) | Draw and describe T. S. Arjuna bark along with its chemical constituents.                                                                                              | <b>05</b> |
|            | (c) | Write biological source, family, morphology, chemical constituents, uses and marketed formulation Malkangni seed.                                                      | <b>05</b> |
| <b>Q.5</b> | (a) | Write chemistry, biogenesis and pharmacological activity of Vitamin A.                                                                                                 | <b>06</b> |
|            | (b) | Write biological source, family, morphology, chemical constituents, uses and marketed formulation Apamarg.                                                             | <b>05</b> |
|            | (c) | Write a short note on Protoplast culture.                                                                                                                              | <b>05</b> |
| <b>Q.6</b> | (a) | Explain chemistry, biogenesis and pharmacological activity Carvone and menthone.                                                                                       | <b>06</b> |
|            | (b) | Write biological source, family, morphology, chemical constituents, pharmacology and marketed formulation Shatavari.                                                   | <b>05</b> |
|            | (c) | Discuss in detail about biotransformation by Plant Tissue culture with examples                                                                                        | <b>05</b> |
| <b>Q.7</b> | (a) | What is antioxidant? Write in brief about any two naturally occurring antioxidant plant drugs.                                                                         | <b>06</b> |
|            | (b) | Write short note on shilajit.                                                                                                                                          | <b>05</b> |
|            | (c) | Define Plant Tissue culture. Describe nutritive requirement of it.                                                                                                     | <b>05</b> |

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