

GUJARAT TECHNOLOGICAL UNIVERSITY**B.Pharm-SEMESTER-VI- (OLD SYLLABUS) EXAMINATION – SUMMER-2015****Subject Code: 260006****Date: 14/05/2015****Subject Name: Pharmacognosy – V (Plant Bio Technology)****Time: 10:30 a.m. to 1:30 p.m.****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) Write a note on Guduchi. | 06 |
| | (b) Write a note on Karen. | 05 |
| | (c) Describe the microscopy of a traditional drug having anomalous vascular bundles. | 05 |
| Q.2 | (a) Write a note on an unorganized traditional drug. | 06 |
| | (b) Write a note on a drug used as a brain and nervine tonic. | 05 |
| | (c) Enlist anthelmintic drugs. Describe the drug used in ring-worm infection. | 05 |
| Q.3 | (a) Write a note on a root drug having steroidal saponins. | 06 |
| | (b) Write a note on a drug containing naphthoquinones. | 05 |
| | (c) Write a note on a drug having Vitamin C. | 05 |
| Q.4 | (a) What are the applications, advantages and disadvantages of plant tissue culture? | 06 |
| | (b) Classify and describe types of cultures. | 05 |
| | (c) Define: (i) Totipotency (ii) De-differentiation & Re-differentiation (iii) Competency (iv) Callus (v) Pluripotency | 05 |
| Q.5 | (a) Enlist various techniques of tissue culture. Write a note on protoplast fusion and its applications. | 06 |
| | (b) Describe the technique of producing secondary metabolites using Recombinant DNA Technology. | 05 |
| | (c) Write a note on micropropagation. | 05 |
| Q. 6 | (a) Describe the stereochemistry of Geraniol and Menthone. | 06 |
| | (b) Describe the biogenesis of Carvone in detail. | 05 |
| | (c) Describe the chemistry of Vitamin A. | 05 |
| Q.7 | (a) Define the terms 'Nutraceuticals' and 'Functional foods'. Classify various nutraceuticals. Describe dietary fibres. | 06 |
| | (b) Describe various anti-oxidants used as nutraceuticals. | 05 |
| | (c) Write a note on a bicyclic monoterpene. | 05 |
