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.**

Q.1	(a)	Describe protoplast fusion for Plant Tissue Culture.	**06**
	(b)	Explain cellular totipotency.	**05**
	(c)	Explain Suspension culture and its applications.	**05**
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 Shilagit.	**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 Dhatakipushpa.	**05**
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**

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