

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. – SEMESTER – I • EXAMINATION – WINTER 2013

Subject Code: 910205

Date: 26-12-2013

Subject Name: Biotechnology and Cultivation of Medicinal Plants

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.

Q.1	(a)	Give types of plant tissue culture and discuss on Suspension culture.	06
	(b)	Define and discuss Artificial seeds.	05
	(c)	Define and discuss biotransformation with suitable examples.	05
Q.2	(a)	Give brief account on Protoplast culture and Protoplast- fusion.	06
	(b)	Give methodology and significance of Transgenic Plants.	05
	(c)	Write commercial application of plant tissue culture.	05
Q.3	(a)	Define and discuss Phytomics.	06
	(b)	Write US Formulary guidelines for Herbal medicinal products.	05
	(c)	Explain Micro propagation giving suitable example.	05
Q.4	(a)	Discuss cultivation, collection and storage of Ginseng.	06
	(b)	Write different methods for cultivation of <i>Curcuma longa</i> and give its pharmacological significance.	05
	(c)	Discuss recent development in cultivation of Taxol and <i>Artemisia annua</i> .	05
Q.5	(a)	Enlist and discuss factors affecting quality of plant drugs.	06
	(b)	Give brief account on economical methods for documentation and preservation of herbs.	05
	(c)	Give detection methods for Arsenic in medicinal plant materials.	05
Q. 6	(a)	Write importance of monographs. Compare monograph of ESCOP, BHP and Chinese Herbal Pharmacopoeia.	06
	(b)	Give WHO guideline for Herbal medicinal products.	05
	(c)	Write detailed note on BHP guideline for Herbal drugs.	05
Q.7	(a)	Define and discuss types of Polyploidy with suitable examples.	06
	(b)	List and discuss methods for drying of crude drugs.	05
	(c)	Explain methods for detection of pesticides and insect infestation in crude drugs.	05
