	Seat No.:	Enrolment No.
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

Subject Code: 250006

B. Pharm. - SEMESTER - V • EXAMINATION - SUMMER 2013

Date: 15-06-2013

Tin	U	Name: Pharmacognosy - IV 2.30 pm - 05.30 pm Total Marks: 80	
	1. 2.	Attempt any five questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.	
Q.1	(a)	Describe Shikimic acid pathway and the secondary metabolites produced through it.	06
	(b) (c)	Describe general techniques to study biosynthetic pathway.  Draw well labelled diagrammatic transverse section of Vasaka leaf.	05 05
Q.2	(a)	Describe source, active constituents and medicinal importance of Opium.  Mention morphine free species of Opium.	06
	(b) (c)	Write a note on Camptotheca. Write a note on Vinca alkaloids and their semi-synthetic derivatives.	05 05
Q.3	(a)	Define alkaloids. Classify them with examples according to heterocyclic ring present in the structure.	06
	(b)	What are protoalkaloids? Write a note on any one protoalkaloid containing drug.	05
	(c)	Give specific chemical tests for following. (i) Quinine (ii) Caffeine (iii) Emetine (iv) Ergometrine (v) Strychnine	05
Q.4	(a)	Write sources, chemical constituents and symptoms of toxicity of Cinchona and Hyoscyamus.	06
	(b) (c)	Write a note on any one steroidal alkaloid containing drug. Discuss the pathway for the biosynthesis of monoterpenes.	05 05
Q.5	(a)	Differentiate following drugs (i) Datura innoxia and Datura metel (ii) Nicotiana tabacum and Nicotiana rustica (iii) Bada chand and Chhota chand	06
	(b)	Write a pharmacognostic note on Ashwagandha. Why it is called as Indian Ginseng?	05
	(c)	Discuss allied drugs and adulterants of Nux-vomica.	05
Q. 6	(a)	What is stereoisomerism? Discuss types of stereoisomers taking examples of natural products.	06
	(b)	What are purine alkaloids? Write a note on any one drug containing purine alkaloids?	05
	(c)	Enlist the drugs containing tropane alkaloids. Write a note on Cocca.	05
Q.7	(a) (b) (c)	Discuss source and life cycle of Ergot with labelled diagram.  Write a note on phenolic and non phenolic alkaloids of Ipecac.  Write pharmacognosy of Aconite.	06 05 05