Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm. – SEMESTER – II • EXAMINATION – SUMMER 2013

Subject Code: 2920103 **Date: 23-05-2013**

Subject Name: Pharmacometrics and Methods of Biological Evaluation of Drugs

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)**	Explain any two models of catararct.	**06**
	(b)	Describe any one high throughput method for screening of ligands.	**05**
	(c)	What is importance for determining LD_{50} and ED_{50}.	**05**
Q.2	**(a)**	Describe the official test for pyrogens.	**06**
	(b)	How to check local anesthetic activity using any *in vivo* model?	**05**
	(c)	How one can screen the molecule for itôs ganglionic blocking activity? Enlist methods with brief note on their principle.	**05**
Q.3	**(a)**	Describe General Principals of Bioassy.	**06**
	(b)	Explain Terratogenicity.	**05**
	(c)	Give method for screening of anti-psychotic agents. How it differs from simple CNS depressants?	**05**
Q.4	**(a)**	Explain in breif the acute toxicity testing as per OECD guidelines.	**06**
	(b)	Describe any one *in vivo* model for testing anti-inflammatory activity.	**05**
	(c)	What are genetically modified animals? Describe briefly on their use in preclinical studies.	**05**
Q.5	**(a)**	Give the methods for antimicrobial activity screening using suitable culture media.	**06**
	(b)	Describe any one model for type-II diabetes malitus in rats.	**05**
	(c)	What are important parameters for evaluating anti-ulcer agents?	**05**
Q. 6	**(a)**	Enlist various models and parameters for screening of antiparkinson activity. Describe any one model brief.	**06**
	(b)	Which models are available for determining centrally acting antinociceptive agents?	**05**
	(c)	How one can screen antihypertensive activity using *in vitro* methods? Describe any two methods.	**05**
Q.7	**(a)**	Explain any one model and parameters for it to screen cardiotonic activity.	**06**
	(b)	How diuretic activity can be studied using rats? Explain model briefly.	**05**
	(c)	Write a brief protocol for screening of neuromuscular blocking activity using any *in vivo* method.	**05**

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