Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharm – SEMESTER II –EXAMINATION – WINTER-2016

Subject Code: 2920103 **Date: 30/11/2016**

Subject Name: Pharmacometrics and Methods of Biological Evaluation of Drugs

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)**	Write about OECD guidelines for sub-acute toxicity.	**06**
	(b)	Write in detail any two methods of screening anti-anginal drugs.	**05**
	(c)	Discuss in detail animal models developed for evaluation of diabetes mellitus.	**05**
Q.2	**(a)**	Discuss the principle and use of Analgesiometer, Plethysmometer and rotarod apparatus in drug screening.	**06**
	(b)	What is bioassay? Write short note on principles of bioassay.	**05**
	(c)	Describe methods for evaluation of parasympatholytic drugs.	**05**
Q.3	**(a)**	Define LD50 and ED50. Write bioassay of Oxytocin as per IP 2007.	**06**
	(b)	How safety of packaging material is assessed using animals?	**05**
	(c)	Describe methods to screen anti-fertility agents used in men and women.	**05**
Q.4	**(a)**	What is pyrogen testing? Write in detail terotogenecity and carcinogenecity testing procedures.	**06**
	(b)	Enlist various methods for evaluation of local anesthetic agents. Explain any one.	**05**
	(c)	Write short note on genetic models used to screen cardiovascular agents.	**05**
Q.5	**(a)**	Write detailed notes on Microbiological assay of antibiotics.	**06**
	(b)	Write briefly in-vivo methods to evaluate anti-asthmatic drugs.	**05**
	(c)	Enlist various methods to evaluate antiepileptic agents. Explain any one in detail.	**05**
Q. 6	**(a)**	Write short note on cell lines and high throughput screening.	**06**
	(b)	Write any one method used and parameters observed to evaluate d-tubocurarine, levodopa, insulin, ethacrynic acid and piracetam.	**05**
	(c)	Enlist various methods for screening drugs acting on adrenergic system.	**05**
Q.7	**(a)**	Describe the following agents/methods used for screening purposes: Strophanthin, DNBS, triton, DOCA, pylorus ligation and maze.	**06**
	(b)	Explain models of cataract and glaucoma.	**05**
	(c)	Discuss animal models for evaluation of antidepressant drugs.	**05**

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