

Seat No.:-----

Enrolment No.:-----

UKA TARSADIA UNIVERSITY

Maliba Pharmacy College

M. Pharm 2nd Semester Internal Examination 2012

040050202- Pharmacometrics: Screening methods in Pharmacology

Time: 1:30 to 4:30 p.m.

Max. Marks: **70**

Date: 21/04/2012

Instructions:

- Question no. **1 is compulsory.**
- From Q.2 to Q.7 attempt any **four** questions.
- Make suitable assumption whenever necessary.
- Figures to the right indicate full marks.

Q.1	(a) Answer the following: (any six)	06
	1 Define Reduction	
	2 Define animal model	
	3 Enlist isolated tissue preparations for the evaluation of adrenoceptors or subtype	
	4 Enlist various parameters for screening of cardiotonic drug	
	5 Give application of patch-clamp techniques	
	6 Give the principle behind force swimming test	
	7 Enlist the selection criteria for animal models	
	8 Give the principle of Plethysmograph	
	(b) Describe in brief: (any four)	08
	1 Explain any two models for evaluation of anti-psychotic drugs	
	2 Write a note on Fourth R (Responsibility) related to animal use	
	3 Explain application of Y maze	
	4 Give Principles of Bioassay	
	5 Define LD50 and ED50 and explain their determination.	
	6 Give the rational of fructose-induced hypertension for screening of antihypertensives	
Q.2	(a) Differentiate OECD 423 and OECD 425 guideline	04
	(b) Explain the methods of testing for teratogenicity of drugs	05
	(c) Describe OECD guidelines for sub-acute toxicity	05
Q.3	(a) Explain advantages and disadvantages of <i>in vitro</i> techniques	04
	(b) Write a note on Bioinformatics	05
	(c) What is <i>in silico</i> technique? Explain its importance in drug discovery with suitable examples	05
Q.4	(a) Explain methods for inducing cataract in animals	04
	(b) Enlist various methods for screening of Anti-inflammatory agents. Write in brief about Carrageenan induced paw edema	05
	(c) Explain application and Importance of transgenic animals in screening of drugs	05

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| Q.5 | (a) | Enlist different in-vivo and in-vitro models for screening of Immunomodulatory agent and write in detail about any one | 04 |
| | (b) | Explain followings | 05 |
| | | i) Diet induced hyperlipidemia | |
| | | ii) Chemical induced catalepsy | |
| | (c) | Write a note on 'official tests for pyrogens'. | 05 |
| Q. 6 | (a) | Discuss the principle and use of the following | 04 |
| | | i) Plus maze apparatus | |
| | | ii) Cook's pole climbing apparatus | |
| | (b) | Enlist different in-vivo and in-vitro models for screening of antiasthmatics and write in detail about any two in-vivo models | 05 |
| | (c) | Differentiate between stress induced, chemical induced and surgical models for Ulcer in rodents | 05 |
| Q.7 | (a) | Classify different animal model and explain its application for screening of drugs | 04 |
| | (b) | Differentiate between models for Type-I and Type-II diabetes mellitus | 05 |
| | (c) | Discuss chemical and electrical methods of inducing arrhythmias | 05 |