

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 cardiotoxic 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 Four 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 rationale 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 *in vitro* techniques 04**
- (b) Write a note on Bioinformatics 05**
- (c) What is *in silico* 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**