

GUJARAT TECHNOLOGICAL UNIVERSITY
M. Pharm. – SEMESTER – II • EXAMINATION – SUMMER • 2015

Subject Code: 2920103**Date: 14-05-2015****Subject Name: Pharmacometrics & 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) Discuss the principle and use of the following: **06**
i. Analgesiometer
ii. Cook's Pole Climbing apparatus
- (b) Enlist various methods for producing cataract in animals & explain any one. **05**
- (c) Describe any one model for evaluation of anti-psychotic drugs. **05**
- Q.2** (a) Discuss various models for evaluation of anti-epileptic agents. **06**
- (b) Mention various models for evaluation of skeletal muscle relaxants. Describe any one in detail. **05**
- (c) Write a short note on principles of bioassay. **05**
- Q.3** (a) Describe in-vivo models for screening of anti-asthmatic agents. **06**
- (b) Write a short note on pyrogen testing. **05**
- (c) Describe any one model for screening of drugs useful for IBD. **05**
- Q.4** (a) Enlist various models used for screening of anti-hypertensive agents. Describe screening of anti-hypertensives using genetically modified animals. **06**
- (b) Write a short note on bioassay of antibiotics **05**
- (c) Discuss – "Assessing safety of packaging material using animals". **05**
- Q.5** (a) Describe : **06**
i. Diet induced hyperlipidemia model
ii. Coronary ligation method for coronary vasodilators
- (b) Explain any one method for evaluation of parasympatholytic drug. **05**
- (c) Enumerate various models for evaluation of thyroid analogues and discuss any one in detail. **05**
- Q. 6** (a) Describe: **06**
i. Granuloma pouch method
ii. Freund's adjuvant method
- (b) Enlist various models for arrhythmia. Describe any one in detail. **05**
- (c) Define LD₅₀ and ED₅₀ and explain their determination. **05**
- Q.7** (a) Differentiate between models for type – 1 and type – 2 diabetes. **06**
- (b) Describe any one model for screening of diuretic agent. **05**
- (c) Write a short note on bioassay of oxytocin as per Indian Pharmacopoeia 2007. **05**
