

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
M. Ph. - SEMESTER - I - EXAMINATION - SUMMER-2018**Subject Code: MPL103T****Date: 07/05/2017****Subject Name: Pharmacological and Toxicological Screening Methods****Time: 02:30PM TO 05:30PM****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 in brief the use of Transgenic animals in Research. **06**
(b) Outline the different methods of Bioassay. Describe in brief the principles of bioassay of Insulin. **05**
(c) What is Euthanasia? Discuss CPCSEA approved methods of euthanasia. **05**
- Q.2** (a) List out the screening models used for evaluation of Drugs used in Type II Diabetes mellitus. **06**
(b) Explain the models used for induction of Hyperthyroidism. **05**
(c) Discuss in brief the models used for induction of Hyperlipidemia. **05**
- Q.3** (a) What are the different models for evaluation of Local Anesthetics. Explain screening by Dermal Anesthesia. **06**
(b) Discuss the pharmacological evaluation of Neuromuscular blockers. **05**
(c) Outline the models used for screening of antidepressants. Write in brief about Porsolt test. **05**
- Q.4** (a) Enumerate models used for screening of Antiasthmatics. Discuss any one method for evaluation of Bronchodilators. **06**
(b) Enlist the models used for the screening of Antihistaminics. Discuss anyone in brief. **05**
(c) How will you evaluate laxatives? **05**
- Q.5** (a) Discuss the general principles of Immunoassay. **06**
(b) Describe the bioassay of Digoxin using Immunoassay methods. **05**
(c) Write a note on the LIPSCHITZ test. **05**
- Q. 6** (a) Explain the use of following in Preclinical screening: (any three) **06**
1. Freund's adjuvant 2. Compound 48/80 3. CCl₄ 4. Croton oil
(b) Enlist the models used for Antiparkinson activity. Discuss the mechanism and suitability of Rotenone induced model. **05**
(c) Classify methods for evaluation of Antialzheimer agents. Discuss the parameters used for assessment of Alzheimer's disease in preclinical models. **05**
- Q.7** (a) Explain the use of following in Preclinical screening: (any three) **06**
1. Cooke's pole 2. Morris water maze 3. Patch clamp 4. Plethysmometer
(b) Enumerate models used for hypertension. Describe any one in detail. **05**
(c) Discuss use of Aspirin plus PL model in evaluation of Antiulcer drugs. **05**
