

GUJARAT TECHNOLOGICAL UNIVERSITY**M.PHARM- SEM-II-EXAMINATION – JULY 2012****Subject code: 2920103****Date: 06/07/2012****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) Enumerate the methods used for screening of anti-inflammatory agents. **06**
Discuss in detail on carageen induced acute hind paw oedema method in rat.
- (b) Write on rabbit head drop method. **05**
- (c) Describe teratogenic testing as per regulatory guidelines. **05**
- Q.2** (a) Write a note on diet induced hyperlipidemia in rats. **06**
- (b) Explain methods for inducing cataract in animals. **05**
- (c) Explain briefly the chemical and radiant heat methods for screening analgesic drugs. **05**
- Q.3** (a) Discuss principle and use of the following. **06**
(i) Pododolorimeter. (ii) Plus maze apparatus.
- (b) Describe Lal test for pyrogens. **05**
- (c) Describe (i) controlled coronary flow and (ii) nitrous oxide technique as models for screening coronary vasodilator drugs. **05**
- Q.4** (a) Compare and contrast the Maximal Electro Shock (MES) and chemically induced convulsion models for anti epileptic activity. **06**
- (b) Write a note on diabetic animal models. **05**
- (c) Explain how the following drugs are estimated biologically **05**
(i) oxytocin (ii) thyroxine.
- Q.5** (a) Describe the evaluation of anticancer activity using appropriate experimental animal model. **06**
- (b) Write a note on principle of bioassay. **05**
- (c) Discuss evaluation of sympatholytic drugs by the following methods (i) prolapse of nictitating membrane and (ii) slenic strip of cat. **05**
- Q. 6** (a) Describe the general principles employed in acute subacute and chronic toxicity studies with regards to selection of animals, duration of study, drug dose and parameters of evaluation. **06**
- (b) Write on evaluation of antiparkinsonia drugs. **05**
- (c) Describe in brief microbial assay of antibiotics. **05**
- Q.7** (a) Describe various methods for screening the effect on conditioned response, unconditioned response and aggressive behavior using appropriate experimental animal model. **06**
- (b) Write briefly on anti-ulcer drugs. **05**
- (c) What are the biological tests for plastic containers used for ophthalmic purpose? **05**