

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

## GUJARAT TECHNOLOGICAL UNIVERSITY

M. Pharmacy Sem-II Examination July 2010

Subject code: 920103

Subject Name: Pharmacometrics and methods of biological evaluation of drugs.

Date: 05/07/2010

Time: 11.00 am – 02.00 pm

### Instructions:

Total Marks: 80

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Define bioassay and discuss briefly the different methods for bioassay of Insulin. **06**  
(b) Enumerate models for evaluation of Sympathomimetics and discuss any three in brief **05**  
(c) Write a short note on Pyrogen test **05**
- Q.2** (a) Define LD<sub>50</sub> and ED<sub>50</sub> and explain their determination. Explain how acute toxicity test is carried out in animals. **06**  
(b) Discuss evaluation of anti psychotic agents using behavioural models. **05**  
(c) Write a short note on diabetic animal models. **05**
- Q.3** (a) Discuss various methods of inducing hypertension in rats and explain indirect method of recording blood pressure in rats. **06**  
(b) Discuss the principle and use of the following- **05**  
    i) Cook's pole climbing apparatus  
    ii) Plethysmograph  
(c) Write a short note on evaluation of anti ulcer drugs. **05**
- Q.4** (a) Enumerate various models for evaluation of thyroid analogues and discuss any two of them in detail. **06**  
(b) Explain methods for inducing cataract in animals. **05**  
(c) Write a short note on Lagendorff's preparation for evaluation of cardiovascular drugs. **05**
- Q.5** (a) Discuss chemical and electrical methods of inducing arrhythmias. **06**  
(b) Explain how antiepileptic agents are evaluated biologically. **05**  
(c) Write briefly about models for inflammatory bowel disease. **05**
- Q. 6** (a) Discuss the principle involved in evaluation of anti asthmatic agents using different models. **06**  
(b) Discuss the principle and use of the following- **05**  
    i) Plus maze apparatus      ii) Analgesiometer  
(c) Describe briefly- **05**  
    i) Diet induced hyperlipidaemia  
    ii) Coronary artery ligation method for coronary vasodilators.
- Q.7** (a) Explain microbiological assay of vitamins **06**  
(b) Discuss methods for evaluation of anti muscarinic activity of Parasympatholytic agents. **05**  
(c) Write a short note on evaluation of antianxiety agents. **05**

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