

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

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

**GUJARAT TECHNOLOGICAL UNIVERSITY**

**M.Pharm Semester –II Examination Dec. - 2011**

**Subject code: 920103**

**Date: 08/12/2011**

**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.**

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|-------------|-----|---|-----------|
| <b>Q.1</b>  | (a) | Define bioassay and Biostandardization. Write down the principle of bioassay. Describe methods of bioassay for Adrenaline.    | <b>06</b> |
|             | (b) | Describe different types of toxicity tests with their significance.   | <b>05</b> |
|             | (c) | Write about the methods of testing for teratogenicity of drugs.   | <b>05</b> |
| <b>Q.2</b>  | (a) | Define pyrogen toxicity. Write about the sources of such kind of toxicity and official method of evaluation for the same.     | <b>06</b> |
|             | (b) | Write about different techniques for microbiological assays of antibiotics.   | <b>05</b> |
|             | (c) | Write about OECD guidelines for sub-acute toxicity.   | <b>05</b> |
| <b>Q.3</b>  | (a) | Enlist different in-vivo and in-vitro models for screening of beta blockers and write in detail about any two in-vivo models. | <b>06</b> |
|             | (b) | Describe at least two evaluation technique for parasympatholytic drugs.   | <b>05</b> |
|             | (c) | Write any two screening methods for non-depolarizing skeletal muscle relaxants.   | <b>05</b> |
| <b>Q.4</b>  | (a) | Enumerate different models for screening of anti-inflammatory drugs and write in detail about any two acute models for it.    | <b>06</b> |
|             | (b) | Describe any two models for evaluation of anti-psychotic drugs.   | <b>05</b> |
|             | (c) | Write about the evaluation techniques for nootropic drugs.  | <b>05</b> |
| <b>Q.5</b>  | (a) | Enlist different evaluation techniques for cardiotonic drugs. Write about any two techniques for the same.                    | <b>06</b> |
|             | (b) | Write in brief about different methods for screening of antihypertensive incorporating use of genetically modified animals.   | <b>05</b> |
|             | (c) | Write down any two screening methods for anti-anginal drugs.  | <b>05</b> |
| <b>Q. 6</b> | (a) | Enumerate different models for screening of anti-ulcer agents. Write about the pylorus ligation model in detail.              | <b>06</b> |
|             | (b) | Describe in details about any one model for evaluation of drug which is useful in case of type II diabetes mellitus.          | <b>05</b> |
|             | (c) | Write about any one anti-ovulatory model for screening of anti-fertility agents useful in women.                              | <b>05</b> |
| <b>Q.7</b>  | (a) | Enlist different models for evaluation of anti-glucoma agents. Write any two in-vivo models for glucoma in detail.            | <b>06</b> |
|             | (b) | Write about any one models for screening of drugs useful for IBD.   | <b>05</b> |
|             | (c) | Describe any two evaluation models for centrally acting analgesic drugs.  | <b>05</b> |

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