

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

Subject Code: 2920103**Date: 07-12-2015**

**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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|-------------|-----|---|-----------|
| Q.1 | (a) | Explain the scope and limitation of bioassay. Describe briefly about bioassay of Digitalis. | 06 |
| | (b) | Describe acute toxicity testing as per OECD guideline | 05 |
| | (c) | Explain tests for teratogenicity as per FDA guideline. | 05 |
| Q.2 | (a) | Describe official pyrogen test in detail. | 06 |
| | (b) | Write a note on different techniques for microbiological assays of antibiotics. | 05 |
| | (c) | How safety assessment of plastic containers for ophthalmic preparation is carried out. | 05 |
| Q.3 | (a) | Enumerates various methods for screening of local anaesthetics agents and explain any one in detail. | 06 |
| | (b) | Describe any two evaluation technique for parasympathomimetics drugs. | 05 |
| | (c) | Explain any one <i>in vivo</i> and <i>in vitro</i> method for evaluation of antiepileptic agents. | 05 |
| Q.4 | (a) | Enlist various <i>in vivo</i> methods for screening of anti-inflammatory agents. Explain any two in brief. | 06 |
| | (b) | Describe HAFFNER's tail clip method and hot plate method for evaluation of analgesic activity. | 05 |
| | (c) | Explain any two methods for evaluation of CNS stimulants. | 05 |
| Q.5 | (a) | Enlist various methods for induction of arrhythmias in animals. Describe any one model in brief. | 06 |
| | (b) | Write a note on Lagendorff Technique. | 05 |
| | (c) | Write a note on Goldblatt hypertension model. | 05 |
| Q. 6 | (a) | Enumerate different animal model for evaluation of anti-ulcer agents. Explain pylorus-ligation method in brief. | 06 |
| | (b) | Write a note on LIPSCHITZ test. | 05 |
| | (c) | Describe different animal models for evaluation of estrogen activity. | 05 |
| Q.7 | (a) | Explain any two models for assessment of diabetes mellitus in rats. | 06 |
| | (b) | Explain α -chymotrypsin induced glaucoma in rats | 05 |
| | (c) | Describe methods to differentiate ganglion blockers and adrenergic neuron blockers. | 05 |
