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DK-M-2011119 Seat No. _____

**M. Pharm. (Pharmacology)
(Sem. II) (CBCS) Examination**

April / May - 2015

**Pharmacometrics & Methods of Biological
Evaluation of Drugs**

Time : 3 Hours]

[Total Marks : 80

- Instructiosns** : (1) Attempt three questions from each section.
(2) Questions 1 and 5 are compulsory
(3) Tie each section separately.
(4) Figure to the right indicates full marks for the respective question.

SECTION-I

- 1** Answer any SEVEN questions : (do as directed) **14**
- (1) Define LD₅₀ value. Enumerate various methods for numbering and grouping Rats.
 - (2) Explain: Alloxan-induced diabetes in rats.
 - (3) Explain briefly: Ethanol-induced gastric ulcer model.
 - (4) Explain: Streptozotocin-induced diabetes model.
 - (5) Explain briefly: Any one animal model to screen anticancer drugs.
 - (6) Enumerate various routes of administration of drugs in animals.
 - (7) Explain terms: Ad libitum, light-dark cycle, coprophagy with respect to animal experiments.
 - (8) Comment: A duration of 30 second is kept as cut off time in hot plate method.
 - (9) Explain briefly: Tail flick method for screening analgesics.
 - (10) Classify animal models for anti-ulcer drugs.
- 2** Classify screening models for Glaucoma. Explain any **13**
TWO models in detail.

- 3** Write various animal models used to screen anti-epileptics and anti-Parkinson's drugs. Write briefly on 'MES-induced seizure model'. **13**
- 4** Enlist various animal models used to screen anti-diabetic drugs. Write on any TWO models (except Streptozotocine and Alloxan models) in details. **13**

SECTION-II

- 5** Answer any TWO questions from the following : **14**
- (1) What is Bioassay? Write its basic principles, purpose, classification methods, advantages, limitations. Explain Graphical and Three point assay in detail.
 - (2) Explain any TWO animal models to screen drugs for peptic ulcer (except ethanol model).
 - (3) Explain any TWO animal models to screen anti-arrhythmic drugs.
- 6** Write different methods to induce experimental hypertension. Describe "Acute renal hypertension in rats" in detail. **13**
- 7** Classify animal models to screen anti-inflammatory drugs. Write briefly on any TWO models in details. **13**
- 8** Enumerate screening models to evaluate drugs for cataract. Describe Any TWO models in detail. **13**