

**THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY**

**[BPHARM0422]**

**APRIL 2022  
(SEPTEMBER 2021 SESSION)**

**Sub. Code: 2086**

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)**

**PCI Regulation 2017 SEMESTER VIII**

**PAPER X - PHARMACOLOGICAL SCREEING METHODS**

***Q.P. Code: 562086***

**Time : Three hours**

**Maximum : 75 Marks**

**I. Elaborate on: Answer any TWO questions.**

**(2 x 10 = 20)**

1. Discuss the guidelines of OECD for the maintenance of Laboratory animals.
2. List out various methods to evaluate anti-inflammatory agents and write briefly on Paw oedema model in rats.
3. Write elaborately on Maximal Electroshock (MES) induced convulsion in rat.

**II. Write notes on: Answer any SEVEN questions**

**(7 x 5 = 35)**

1. List out various Chemical Carcinogens used to induce cancer in animals. Add a note on DMBA (Dimethyl benzanthracene).
2. Explain any one method for screening the Diuretics agents.
3. Discuss briefly on various vehicles used for the preparation of drug solutions.
4. What is Limulus Amebocyte Lysate (LAL) test. Discuss the methodology of LAL test.
5. With suitable example, explain the chronic anti-inflammatory screening method.
6. Mention various methods for screening Local Anesthetic agents and discuss a suitable method in the evaluation of infiltration anesthesia.
7. Discuss the applications of biostatistics in experimental pharmacology.
8. List out various in-vitro and in-vivo screening methods for anti-arrhythmic agents and briefly discuss any one method.
9. What is Euthanasia? Add a note on inhalational anesthetics as euthanizing agents.

**III. Short Answers on: Answer ALL questions**

**(10 x 2 = 20)**

1. Mention the two uses of Zebra Fish (*Danio rerio*) in experimental pharmacology.
2. What is Sham Negative group in preclinical study?
3. Mention the uses of mutant animals in drug screening.
4. Mention the uses of Elevated plus maze in experimental pharmacology.
5. Write the application of Langendorff's heart preparation.
6. Name two Nootropic agents.
7. Name two methods in the screening of anti-hypertensive agents.
8. List out the methods in the breeding of laboratory animals.
9. What is Lipschitz test?
10. What is *in-vitro* screening method?

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**THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY**

**[BPHARM 1022]**

**OCTOBER 2022  
(MARCH 2022 SESSION)**

**Sub. Code: 2086**

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)  
PCI Regulation 2017 - SEMESTER VIII  
PAPER X - PHARMACOLOGICAL SCREEING METHODS  
Q.P. Code: 562086**

**Time : Three hours**

**Maximum : 75 Marks**

**I. Elaborate on: Answer any TWO questions (2 x 10 = 20)**

1. Write elaborately on various laboratory animals used in preclinical study.
2. Mention various animal models employed in the screening of anti-hypertensive agents and discuss briefly on any two models.
3. Discuss various methods employed in the screening of narcotic and non-narcotic analgesics.

**II. Write notes on: Answer any SEVEN questions (7 x 5 = 35)**

1. Discuss various blood collection techniques from lab animals for biomedical research.
2. Write the rationale and method in barbiturate induced sleeping time.
3. Discuss a suitable preclinical model for anti-diabetic drug screening.
4. Write briefly on paired and unpaired 't' test.
5. List out various *in-vitro* and *in-vivo* screening models for anticancer agents. Add note on Daltons Lymphoma Ascites induced cancer model.
6. Enumerate the principle involved in the screening of muscle relaxants using Rotarod apparatus.
7. Discuss the importance in the selection of species and sex of animals in preclinical study.
8. Explain any one isolated tissue preparation employed in the screening of anti-asthmatic agents.
9. Mention the preclinical screening models of Alzheimer's disease and write briefly on any one model.

**III. Short Answers on: Answer ALL questions (10 x 2 = 20)**

1. What is CPCSEA?
2. Mention two common routes of drug administration in laboratory animals.
3. Mention the uses of Carboxy methyl Cellulose solution in drug administration.
4. What is use of Hebb William Maze?
5. Name two drugs used to induce ulcer in animals.
6. Define the term Biostatistics.
7. Name two anticoagulants.
8. Mention two screening methods for anti-dyslipidemic drugs.
9. Mention the uses of Condition Avoidance Response apparatus
10. What is DOCA salt? Mention its uses.

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**THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY**

**[B.PHARM 0323]**

**MARCH 2023  
(SEPTEMBER 2022 EXAM SESSION)**

**Sub. Code: 2086**

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)  
PCI Regulation 2017 - SEMESTER VIII  
PAPER VI - PHARMACOLOGICAL SCREENING METHODS  
*Q.P. Code: 562086***

**Time : Three hours**

**Maximum : 75 Marks**

**I. Elaborate on: Answer any TWO questions (2 x 10 = 20)**

1. Explain the different screening techniques for
  - a. local anaesthetics
  - b. diuretics
2. Describe briefly about the maintenance of laboratory animals.
3. Explain different techniques of blood collection.

**II. Write notes on: Answer any SEVEN questions (7 x 5 = 35)**

1. Screening models for antidepressants.
2. Write a note on different laboratory animals.
3. Write any two screening models for sympatholytic drugs.
4. Write a note on drugs acting on eye.
5. Explain different techniques for euthanasia.
6. Screening models for anticoagulants.
7. Explain the importance of one-way ANOVA.
8. Screening models for antiarrhythmic drugs.
9. Screening models for antidiabetics.

**III. Short Answers on: Answer ALL questions. (10 x 2 = 20)**

1. Breeding techniques.
2. Transgenic animals.
3. Nude rats.
4. List out the screening methods for antiasthmatics.
5. List out the screening methods for nootropics.
6. Student t test.
7. List out the screening methods for antiepileptic drugs.
8. Dose calculation.
9. Study design.
10. Review of literature.

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