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 Langendroff'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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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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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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[B.PHARM 0823]   **AUGUST 2023**   Sub. Code: 2086
(MARCH 2023 EXAM SESSION)

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 blood collection techniques.
2. Preclinical screening models for anti ulcer drugs.
3. CPCSEA guidelines for maintenance of laboratory animals.

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

1. Screening models for local anaesthetics.
2   Write a note on transgenic animals.
3. Write any two screening models for anti hypertensive drugs.
4. Write a note on screening of parasympatholytics.
5. Explain different techniques for euthanasia.
6. Screening models for diuretics.
7. Different techniques for preclinical data analysis.
8. Screening models for alzheimer's disease.
9. Screening models for sympathomimetics.

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

1. Breeding techniques.
2. Mutant animals.
3. Wistar rats.
4. List out the screening methods for NSAIDS.
5. List out the screening methods for skeletal muscle relaxant.
6. Student t test.
7. List out the screening methods for anticancer drugs.
8. OECD.
9. Route of drug administration.
10. ANOVA.

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B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
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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. Discuss various techniques for collection of blood from laboratory animals in experimental pharmacology.
2. Classify anti-asthmatic drugs and highlight *in-vitro* and *in-vivo* screening methods for anti-asthmatic agents. Write briefly on any one *in-vivo* method.
3. What is ulcer? List out the screening methods for anti-ulcer drugs and discuss the principle involved in pylorus ligated rat ulcer model.

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

1. Discuss the application of Student 't' test in data analysis.
2. What is literature review? Write the importance of literature review in research methodology.
3. List out various experimental model to screen antidiabetic drug. Add a note on Streptozotocin.
4. Mention various cell lines adopted for screening anti-cancer agents and explain briefly on any one method.
5. Write elaborately on any one model to screen sympathomimetic agent.
6. Describe the rabbit head drop method in the screening of muscle relaxants.
7. Discuss the importance of animal selection in experimental pharmacology.
8. Write notes on Hole Board Test.
9. Discuss various breeding techniques employed in Laboratory animals.

III. Short Answers on: Answer ALL questions.   **(10 x 2 = 20)**
1. What is transgenic animal?
2. Mention two vehicles used for drug administration in animals.
3. Define Euthanasia.
4. What is Catatonia?
5. What is the use of Carrageenan?
6. What is ANOVA? Mention its application.
7. List out various strains of rats used in experimental pharmacology.
8. Mention two screening methods for antihypertensive agents.
9. What is the use of Eddy's Hot Plate?
10. What is Pentylenetetrazole? Mention its uses.

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