

MAY 2011

[KY 351]

Sub. Code: 2912

M.PHARM. DEGREE EXAMINATION

(Regulations 2010)

(Candidates admitted from 2010-2011 onwards)

FIRST YEAR

BRANCH IV – PHARMACOLOGY

PAPER III – BIOLOGICAL STANDARDISATION

AND PHARMACOLOGICAL SCREENING METHODS

Q.P. Code : 262912

Time : Three hours

Maximum : 100 marks

Answer All questions

I. Essay Questions :

(6 x 10 = 60)

1. Discuss about CPCSEA guidelines for the usage of animals for experimental purpose.
2. List out screening methods for gastric ulcer. Explain in detail about pyrolic ligation induced ulcer and NSAID's induced ulcer.
3. What is Diabetes? Screening models for Diabetes. Discuss any one method in detail.
4. Detail the principle of Immunoassay and explain about the separation techniques.
5. Discuss about the screening methods available for anti inflammatory drugs. Explain in detail about the Freund's Complete Adjuvant induced arthritis.
6. What is Parkinsonism? List out the screening models for Parkinsonism and explain MPTP model in detail.

II. Write Short Notes :

(8 x 5 = 40)

1. Note on Transgenic animals.
2. Discuss the different methods of blood collection.
3. Write note on invitro anti cancer activity.
4. Enumerate the different screening models anti-fertility agents and describe any one.
5. Different models in diarrhoea and laxatives. Explain any one model from diarrhoea.
6. Note on Euthanasia.
7. Define Toxicity? Explain about acute, subacute and chronic toxicity studies.
8. Paired -t- test, wilcoxon test and student t- test.

October 2011

[KZ 351]

Sub. Code: 2912

M.PHARM. DEGREE EXAMINATION

FIRST YEAR

BRANCH IV – PHARMACOLOGY

PAPER III – BIOLOGICAL STANDARDISATION AND

PHARMACOLOGICAL SCREENING METHODS

Q.P. Code : 262912

Time : 3 hours
(180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

	Pages (Max.)	Time (Max.)	Marks (Max.)
1. Explain the OECD guidelines for the conduct of acute, sub-acute and chronic toxicity studies.	17	40	20
2. Discuss the various methods employed in the screening of antiarrhythmic drugs.	17	40	20

II. Write notes on :

1. Optimization of immunoassays.	4	10	6
2. Use of knock-out mouse in the preclinical evaluation of drugs.	4	10	6
3. Explain any one method for the bioassay of digitalis.	4	10	6
4. Conditioned avoidance test.	4	10	6
5. Explain any two methods for the screening of drugs used for Parkinson's disease.	4	10	6
6. Student's <i>t</i> test.	4	10	6
7. Carcinogenicity testing.	4	10	6
8. Randall – Selitto test.	4	10	6
9. Write a note on different human cell lines used in screening techniques.	4	10	6
10. Charcoal meal test.	4	10	6

[LA 351]

MAY 2012

Sub. Code: 2912

M.PHARM. DEGREE EXAMINATION

FIRST YEAR

BRANCH IV – PHARMACOLOGY

PAPER III – BIOLOGICAL STANDARDISATION AND PHARMACOLOGICAL
SCREENING METHODS

Q.P. Code: 262912

Time: 3 hours
(180 Min)

Maximum: 100 marks

Answer ALL questions in the same order.

I. Elaborate on:

Pages Time Marks
(Max.) (Max.) (Max.)

- | | | | |
|---|----|----|----|
| 1. a. Describe the bioassay of d-tubocurarine.
b. Describe the invitro anticancer drug screening. | 17 | 40 | 20 |
| 2. a. Explain any two invivo screening methods for antihypertensives.
b. Explain any two invivo screening methods for anticonvulsants. | 17 | 40 | 20 |

II. Write notes on:

- | | | | |
|--|---|----|---|
| 1. Explain Phrenic nerve diaphragm of rat. | 4 | 10 | 6 |
| 2. Write short notes on principles of bioassay. | 4 | 10 | 6 |
| 3. Describe the Shay rat model. | 4 | 10 | 6 |
| 4. Acute toxicity studies as per OECD guidelines. | 4 | 10 | 6 |
| 5. What are the advantages and disadvantages of alternative experimental models? | 4 | 10 | 6 |
| 6. Describe different animal cell lines used in screening. | 4 | 10 | 6 |
| 7. Despair swim test. | 4 | 10 | 6 |
| 8. Euthanasia. | 4 | 10 | 6 |
| 9. Short notes on Wilcoxon test, Paired T test. | 4 | 10 | 6 |
| 10. Explain one chronic and one acute screening model for anti-inflammatory drugs. | 4 | 10 | 6 |

[LB 351]

NOVEMBER 2012
M.PHARM. DEGREE EXAMS
FIRST YEAR
BRANCH IV – PHARMACOLOGY
PAPER III – BIOLOGICAL STANDARDISATION
AND PHARMACOLOGICAL SCREENING METHODS
Q.P. Code : 262912

Sub. Code: 2912

Time : 3 hours
(180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

Pages Time Marks
(Max.)(Max.)(Max.)

- | | | | |
|--|----|----|----|
| 1. Explain the various models used in antihypertensive screening. | 17 | 40 | 20 |
| 2. Discuss in detail the different methods employed in the euthanasia of laboratory animals. | 17 | 40 | 20 |

II. Write Notes on :

- | | | | |
|---|---|----|---|
| 1. MES – induced seizures. | 4 | 10 | 6 |
| 2. Explain the bioassay of oxytocin by measurement of milk ejection pressure in a lactating rat. | 4 | 10 | 6 |
| 3. ANOVA. | 4 | 10 | 6 |
| 4. Maintenance of cell lines. | 4 | 10 | 6 |
| 5. Explain the role of transgenic animal models in preclinical research. | 4 | 10 | 6 |
| 6. Write a brief note on heterogenous immunoassays. | 4 | 10 | 6 |
| 7. Use of Shay rats. | 4 | 10 | 6 |
| 8. Rabbit head drop method. | 4 | 10 | 6 |
| 9. Explain any three <i>in vitro</i> methods for the screening of free radical scavenging activity. | 4 | 10 | 6 |
| 10. Principles of toxicokinetics. | 4 | 10 | 6 |

[LD 351]

OCTOBER 2013

Sub. Code: 2912

M.PHARM. DEGREE EXAMINATIONS
FIRST YEAR
BRANCH IV – PHARMACOLOGY
PAPER III – BIOLOGICAL STANDARDISATION
AND PHARMACOLOGICAL SCREENING METHODS

Q.P. Code : 262912

Time: Three Hours

Maximum: 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

(2 x 20 = 40)

1. a) Enumerate the screening methods of anti-diarrhoeal drugs.
b) Enumerate anesthesia and euthanasia of commonly used experimental animals.
2. a) What is catatonia? Enumerate the screening methods for anti parkinsonism drugs.
b) What are the guidelines of CPCSEA (committee for the purpose and supervision on experimental animals) to maintain the animal house.

II. Write notes on :

(10 x 6 = 60)

1. Carragenin induced paw edema
2. Eddys hot plate
3. Elevated plus maze,
4. What are the protocol preparations in immunoassay methods evaluation.
5. What are the techniques for blood collection in the laboratory animals
6. Bioassay of d-tubocurarine
7. Enumerate the screening methods for anti diabetic drugs
8. Enumerate the screening methods for free radical scavenging activity
9. Enumerate the screening methods for anti arrhythmics drugs
10. Range finding tests.

[LE 351]

APRIL 2014

Sub. Code: 2912

**M.PHARM. DEGREE EXAMS
FIRST YEAR
BRANCH IV – PHARMACOLOGY
PAPER III – BIOLOGICAL STANDARDISATION
AND PHARMACOLOGICAL SCREENING METHODS**

Q.P. Code : 262912

Time : 3 hours

Maximum : 100 marks

I. Elaborate on :

(2x20=40)

1. Describe in detail the different *in vivo* models employed in the screening of anti-arrhythmic drugs.
2. Explain the bioassay of Oxytocin using rat as the experimental animal. Explain any two *in vitro* methods for the screening of free radical scavenging activity.

II. Write notes on :

(10x6=60)

1. Charcoal meal test.
2. Methods of breeding of laboratory animals.
3. One-way ANOVA.
4. Explain the optimization of immunoassays.
5. Chronic toxicity studies according to OECD guidelines.
6. Different animal cell lines used in screening techniques.
7. Irwin's test.
8. Explain any one *in vitro* method for the screening of parasympathomimetic drugs.
9. Randall-Sellito method.
10. Carcinogenicity testing.

[LF 351]

OCTOBER 2014

Sub. Code: 2912

**M.PHARM. DEGREE EXAMINATION
FIRST YEAR
BRANCH IV – PHARMACOLOGY
PAPER III – BIOLOGICAL STANDARDISATION AND
PHARMACOLOGICAL SCREENING METHODS**

Q.P. Code : 262912

Time : Three hours

Maximum : 100 marks

I. Elaborate on:

(2 x 20 = 40)

1. a) Enumerate the screening methods of anti-anxiety drugs.
b) Describe different acute and chronic anti-inflammatory screening methods.
2. a) Describe the bio assay of insulin.
b) What are the methods available to induce convulsions experimentally in animals? Enumerate maximum electroshock method.

II. Write Notes on:

(10 x 6 = 60)

1. Write the screening methods for anti parkinsons disease.
2. Describe the screening methods of anti-emetic drugs.
3. Write the screening methods of analgesic drugs.
4. What are the methods of production of immunoassay agents.
5. Enumerate invitro anticancer screening methods.
6. Enumerate the methods of breeding of laboratory animals.
7. Enumerate the alternative experimental models.
8. Write short notes on mutagenesis and carcinogenesis.
9. Describe the screening methods of hepatoprotective agents.
10. Enumerate the screening methods of drugs used in alzheimers disease.
