

APRIL - 2001

[KD 527]

M.D. (Siddha) DEGREE EXAMINATION

Third Year

(Old/New Regulations)

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND BIO
ASSAY OF DRUGS**

Time : Three hours

Maximum : 100 marks

Answer ALL questions

- 1 Explain preliminary screening methods (15)
2. Classify drugs useful in peptic ulcer Explain methods of evaluating anti ulcer drugs. (15)
3. What are the limitations of animal tests. Give examples. (15)
4. Classify anti inflammatory agents and give in detail the methods of testing anti inflammatory drugs. (20)

Write an essay on bioassay

(15)

6 Short notes

(20)

- (a) Isolated organ bath
- (b) Experimental diabetes
- (c) Convulsiometer
- (d) Diazepam

MARCH - 2002

[KG 527]

M.D. (Siddha) DEGREE EXAMINATION

(Old/New Regulations)

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIO-ASSAY OF DRUGS**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Methods of evaluating oral iron tonics. Explain. (15)
2. How will you prove that a drug has antifertility effect? (20)
3. Write briefly about antiepileptic drugs and the methods of evaluating such agents. (20)
4. Do animal experiments always give reliable results? If not explain with suitable examples. (15)

5. How will you evaluate anti asthmatic drugs? (15)

6. Short notes : (15)

- (a) Microbiological assay
- (b) Formalin induced edema
- (c) Analgesiometers
- (d) Diethyl carbamazine.

SEPTEMBER - 2002

[KH 527]

M.D. (Siddha) DEGREE EXAMINATION.

Third Year

(Old/New Regulations)

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Explain primary screening of a drug. (15)
 2. How will you evaluate an analgesic drug? Classify NSAIDS. (15)
 3. Define Bioassay. Explain various aspects of bioassay with suitable examples. (20)
 4. Define pharmacokinetics. Explain biotransformation of drugs. (15)
 5. Classify anticancer drugs with suitable examples. Explain methods of evaluating antitumor drugs. (15)
 6. Short notes : (20)
 - (a) Amlodipine
 - (b) Aspirin
 - (c) Heparin
 - (d) Rotarod apparatus.
-

APRIL - 2003

[KI 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

Paper III — APPLIED PHARMACOLOGY

**INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. What are analgesics? Classify them. How will you experimentally prove a drug is an analgesic? (20)
2. Classify anticancer drugs. Describe the methods available to test anti cancer drugs. (15)
3. Classify the local anaesthetics with suitable examples. Explain the methods used to test local anaesthetic drugs. (15)
4. Classify diuretics with suitable examples. Explain the methods of testing diuretic agents. (15)

5. How will you experimentally prove a drug is toxic? What are the different types of Adverse effects of drugs? (15)

6. Write short notes on : (20)
 - (a) Actophotometer.
 - (b) Microbiological Assay.
 - (c) Carbamazepine.
 - (d) Convulsimeter.

OCTOBER - 2003

[KJ 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

Paper III — APPLIED PHARMACOLOGY

INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Write in detail about common adverse effects of drugs. (15)
2. How will you evaluate an anti-diabetic drug? (20)
3. What is drug potency and efficacy? Write briefly on dose-response relationship and illustrate diagrammatically. (20)
4. How will you evaluate local anesthetics? (15)
5. What are the techniques for evaluation of drugs acting on heart? (15)

6. Short notes on :

(3 × 5 = 15)

- (a) Granuloma pouch.
 - (b) Limitations of animal tests.
 - (c) Four point assay.
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APRIL - 2004

[KK 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS

Time : Three hours

Maximum : 100 marks

Sec. A & B : Two hours and
forty minutes

Sec. A & B : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL the questions.

SECTION A

Long Essay :

(2 × 15 = 30)

1. How will you evaluate an analgesic drug?
2. Write an essay on Bioassay.

SECTION B

Short notes :

(10 × 5 = 50)

3. Shay Rat.
4. Rota rod apparatus.
5. Nifedipine.
6. Alloxan.

7. Omeprazole.
 8. Dale's phenomenon.
 9. B-Blockers.
 10. Carbamazepine.
 11. Ziggle case.
 12. Convulsimeter.
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AUGUST - 2004

[KL 527]

Sub. Code : 2145

SECTION B

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS**

Time : Three hours

Maximum : 100 marks

**Sec. A & B : Two hours and
forty minutes**

Sec. A & B : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL the questions.

SECTION A

Long Essay :

(2 × 15 = 30)

1. Classify the types of local anesthetics with suitable examples and outline the methods of evaluating them. (15)

2. How will you experimentally demonstrate that a drug is safe? (15)

Short note :

(10 × 5 = 50)

- 3. Aspirin.**
 - 4. Therapeutic index.**
 - 5. Rotarod.**
 - 6. Microbiological assay.**
 - 7. Tachyphylaxis**
 - 8. Salbutamol.**
 - 9. Half-life of a drug**
 - 10. Convulsimeter.**
 - 11. Forms of drug preparations.**
 - 12. Biostatistics.**
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FEBRUARY - 2005

[KM 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS**

Time : Three hours

Maximum : 100 marks

**Sec. A & B : Two hours and
forty minutes**

Sec. A & B : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer Sections A and B in the SAME answer book.

Answer ALL questions.

SECTION A — (2 × 15 = 30 marks)

Long Essay :

1. Write briefly the pharmacology of oral anti diabetic drugs. How will you evaluate anti diabetic agents?
2. How will you conduct preliminary pharmacological screening?

SECTION B — (10 × 5 = 50 marks)

Short notes :

3. Triple analgesic tests.
4. Frog plexus anesthesia.
5. Convulsiomiser.
6. Insulin.
7. Plethysmograph.
8. Bioassay of acetyl choline.
9. Isolated organ bath.
10. Adrenaline.
11. Experimental tumor.
12. Amlodipine.

AUGUST - 2005

[KN 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS**

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay : (2 × 15 = 30)

1. Write briefly the pharmacology of anti-depressants and the methods of evaluating drugs used in mental disorders. (15)

2. Explain some of the disadvantages of animal experiments. (15)

II. Short notes :

(10 × 5 = 50)

- 1. Tachyphylaxis.**
- 2. Nifedipine.**
- 3. Glyceryl nitrate.**
- 4. Dolorimeter.**
- 5. Metrazol convulsion.**
- 6. Hind paw edema.**
- 7. Granuloma pouch.**
- 8. Charcoal meal.**
- 9. Rotarod.**
- 10. Isolated rabbit heart.**

FEBRUARY - 2006

[KO 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

**Paper III – APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF
DRUGS**

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay : (2 × 15 = 30)

- 1. Write briefly about bioassay.**
- 2. Classify anti convulsants. Write briefly the evaluation of anti epileptic drugs.**

II. Short notes : (10 × 5 = 50)

- 1. Dale's vasomotor phenomenon.**
- 2. Plexus anesthesia in frog.**

- 3. Carrageenin edema.**
 - 4. Aesophotometer.**
 - 5. Omeprazole.**
 - 6. Alloxan.**
 - 7. Pyloric ligation method.**
 - 8. Metformin.**
 - 9. Jiggle cage.**
 - 10. Methyl cholantharine.**
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MARCH - 2007

[KQ 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Long Essay : (1 × 20 = 20)

1. Classify the drugs used in the treatment of hypertension. Describe the various methods of evaluation of anti hypertensive drugs. Mention the adverse effects of Angiotension Converting Enzyme (ACE) inhibitors.

II. Long Essay : (2 × 15 = 30)

1. Explain the various methods of evaluation of Central Nervous System depressant drugs.
2. Discuss the various adverse reaction produced by the drug. (Adverse Drug Reaction).

III. Short notes : (6 × 5 = 30)

1. Sublingual Route of administration of drugs.
 2. Renal excretion of drugs.
 3. Tolerance.
 4. Pharmacogenetics.
 5. Acute toxicity test.
 6. Hind Paw Edema.
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March-2008

[KS 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS**

Q.P. Code : 322145

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Long Essay : (2 × 20 = 40)

(1) Write briefly the pharmacology of diuretics and the methods of evaluating drugs used as diuretics.

(2) Explain in detail the various types of drug interactions.

II. Short notes : (10 × 6 = 60)

(1) First pass metabolism of drugs

(2) G-protein coupled receptors

(3) Drug tolerance

(4) Amlodipine

(5) Losartan

(6) Righting reflex

(7) Four point assay

(8) Writhing induced by chemicals

(9) Freund's adjuvant

(10) Histamine aerosol

[KT 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS**

Q.P. Code : 322145

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Long Essay : (2 × 20 = 40)

1. Define Bio assay. Explain the advantages and disadvantages of bioassay with examples. (20)

2. What are oral antidiabetic agents? Explain the different methods available to prove a drug is anti-diabetic. (20)

II. Write short notes : (10 × 6 = 60)

1. Rota Rod.

2. Antiulcer drugs.

3. Nonsedative Antihistamines.

4. Human Insulins.

5. Atenalol.

6. Iatrogenic diseases.

7. Student's 'T' test.

8. Different types of levers used in experimental pharmacology.

9. Convulsiometer.

10. Cardio tonics.

March - 2009

[KU 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS**

Q. P. Code : 322145

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Long Essay : (2 × 20 = 40)

1. Drugs used in arthritis.

மூட்டு வலி (கீல் வாதம்) நோய் மருந்துகளை விவரி.

2. Preclinical and clinical evaluation of drugs for hypertension.

மீக்குருதியழுத்த மருந்துகளை (ஆன்டி ஹைபர்டன்சிவ்) விலங்குகளின் மூலமும் மனித ஆராய்ச்சி மூலமும் எவ்வாறு பரிசீலிக்கலாம்?

II. Short notes: (10 × 6 = 60)

1. Anti metabolites.

வளர் சிதை வினைமாற்றத்தை எதிர்க்கும் மருந்துகள் – (ஆன்டிமெட்டபொலைட்ஸ்).

2. Cumulative toxicity.

கூட்டலினால் அதிகரிக்கின்ற பக்க விளைவுகள் (க்யூமுலேட்டிவ் டாக்ஸிசிடி).

3. Losartan.

லொசார்ட்டான்.

4. Appetizers.

பசியூக்கி.

5. Nitrates

நைட்ரேட்ஸ்.

6. Heparin.

ஹெப்பாரின்.

7. Cardio-selective beta blockers.

இருதயத்தில் மட்டும் தனிப்பட்ட முறையில் விளைவுகளை ஏற்படுத்தும் பீட்டா பிளாக்ஸ்கள்.

8. Hepatotoxicity.

கல்லீரலில் ஏற்படும் பக்க விளைவுகள்.

9. Antipyretics.

காய்ச்சலை குணப்படுத்தும் மருந்துக்கள்.

10. Parenteral iron preparation.

ஊசி மூலம் அளிக்கப்படும் இரும்பு மருந்து (பாரென்ட்ரல் அயர்ன்).

September - 2009

[KV 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS**

Q.P. Code : 322145

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Long Essay : (2 × 20 = 40)

1. Discuss the pharmacology and toxicology of drugs used in the treatment of emesis.

வாந்தியை கட்டுப்படுத்த உபயோகிக்கும் மருந்துகளின் செயல்முறையையும், பக்க விளைவுகளையும் விவரி.

2. Discuss in detail the animal experiments and clinical methods of evaluation of analgesics.

வலி நிவாரணிகளை விலங்குகளையும், மனிதனையும் கொண்டு ஆராய்ச்சி செய்து எவ்வாறு அவற்றின் விளைவுகளை மதிப்பிடலாம்?

II. Write short notes : (10 × 6 = 60)

1. Idiosyncrasy.

தனிமுரண்பாடு-இடியோசின்கிரசி.

2. Targeted drug delivery system.

இலக்கை (குறிப்பிட்ட தசையை) கொண்ட மருந்தளிக்கும் முறை-டார்கெட்டட் டிரக் டெலிவரி சிஸ்டம்.

3. Diclofenac sodium.

டைக்ளோபெனாக் சோடியம்.

4. Salbutamol.

சால்பு யூட்டமால்.

5. Sushruta and Charaka.

சுஷ்ருதா, சரக்கா பற்றி எழுதுக.

6. HPTLC in the measurement of herbal drugs.

எச்.பி.டி.எல்.சி யைக் கொண்டு மூலிகை மருந்துகளை எவ்வாறு மதிப்பிடலாம்.

7. Topical route of drug administration.

மருந்தை தோலின் மீது தடவி உபயோகிக்கும் முறை.

8. Therapeutic Index.

மருந்து சிகிச்சை முறையில் குறியீடு-தெரப்யூட்டிக் இண்டெக்ஸ்.

9. Alkaloids as source of drugs.

மூலிகைகளிலிருந்து (ஆல்கலாய்ட்) தயாரிக்கும் மருந்துகள்.

10. Receptors.

ரிசப்டார்ஸ்.

[KW 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS**

Q. P. Code : 322145

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Long Essay : (2 × 20 = 40)

- 1. Classify anti hypotensive drugs with suitable examples. Describe the methods of evaluating hypotensives. (20)**
- 2. Describe in detail the primary screening of drugs. (20)**

II. Short notes :

(10 × 6 = 60)

- 1. Half life of a drug.**
 - 2. Plethysmograph.**
 - 3. Morphine.**
 - 4. Pyloric ligation technique.**
 - 5. Frureoniell.**
 - 6. Organ bath.**
 - 7. Codeine.**
 - 8. Limitations of bioassay.**
 - 9. Aspirin.**
 - 10. Digoxin.**
-

September 2010

[KX 527]

Sub. Code : 2145

M.D.(SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II – Gunapadam

Paper III — APPLIED PHARMACOLOGY
INCLUDING MEDICINAL CHEMISTRY AND
BIOASSAY OF DRUGS

Q.P. Code : 322145

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Long Essay : (2 × 20 = 40)

1. What are the various types of Assays? In detail, Discuss how various types of bioassays are done.
2. What is Biotransformation? Discuss in detail, the various types of biotransformation reactions with suitable examples.

II. Write Short notes on : (10 × 6 = 60)

1. Ethics of Research in man
2. Carrier mediated transport of drugs
3. Rabbit as an experimental animal
4. Levers used in experiments
5. Sources of drugs
6. Inverse agonists
7. Solid dosage forms
8. Blood brain barrier
9. Pharmacogenetics
10. Cardiotonics.

MAY 2011

[KY 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF DRUGS**

Q.P. Code : 322145

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Long Essay :

(2 x 20 = 40)

1. Classify the antidiabetic drugs. Write about the various evaluatory methods.
2. Factors modifying drug actions.

II. Short notes :

(10 x 6 = 60)

1. Animal toxicity studies.
 2. Phenytoin.
 3. Omeprazole.
 4. Evaluation of antiasthma drugs.
 5. Atropine.
 6. Carragenan in evaluation.
 7. Write about the methods for testing muscle coordination.
 8. Plasma half life.
 9. Placebo.
 10. Competitive antagonism.
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October 2011

[KZ 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

THIRD YEAR

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY INCLUDING MEDICINAL
CHEMISTRY AND BIOASSAY OF DRUGS**

Q. P. Code : 322145

**Time : Three hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

	Pages (Max.)	Time (Max.)	Marks (Max.)
1. What are the various types of clinical trials? Discuss about pre clinical studies.	11	35 min.	20
2. Describe various mechanisms of drug action.	11	35 min.	20

II. Write notes on :

1. What are the ethical requirement for animal experiments?	4	10 min.	6
2. Write in brief about physiological salt solutions.	4	10 min.	6
3. Orphan drugs.	4	10 min.	6
4. Methods of testing drugs used in skin disorder.	4	10 min.	6
5. Plasma protein binding.	4	10 min.	6
6. Sex differences in response to drugs.	4	10 min.	6
7. Pharmacovigilance.	4	10 min.	6
8. Transdermal drug delivery system.	4	10 min.	6
9. Prodrugs.	4	10 min.	6
10. Evaluation of local anaesthetics action of drugs.	4	10 min.	6

[LA 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION.

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY INCLUDING MEDICINAL
CHEMISTRY AND BIOASSAY OF DRUGS**

Q. P. Code : 322145

Time : Three hours (180 Minutes)

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :	Pages (Max.)	Time (Max.)	Marks (Max.)
1. Enumerate the drugs used for peptic ulcer. Discuss in detail about the evaluatory methods for anti peptic ulcer drugs.	11	35 min.	20
2. Write in detail about the various routes of drug administration. Discuss about the advantages and disadvantages of each route.	11	35 min.	20
II. Write notes on :			
1. Teratogenicity.	4	10 min.	6
2. Chemical methods of evaluation for analgesic activity.	4	10 min.	6
3. Atenolol.	4	10 min.	6
4. Bioassay.	4	10 min.	6
5. Student 'T' test.	4	10 min.	6
6. Rota rod apparatus.	4	10 min.	6

7.	Explain any two methods-for evaluation of antihypertensives.	4	10 min.	6
8.	Guinea pig as an experimental animal	4	10 min.	6
9.	Alloxan.	4	10 min.	6
10.	Penicillin.	4	10 min.	6

[LB 527]

Sub. Code : 2145

M.D. (SIDDHA) DEGREE EXAMINATION – OCTOBER 2012

Third Year

Branch II — Gunapadam

**Paper III — APPLIED PHARMACOLOGY INCLUDING MEDICINAL
CHEMISTRY AND BIOASSAY OF DRUGS**

Q. P. Code : 322145

Time : 180 Minutes

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :	Pages	Time	Marks
	(Max.)	(Max.)	(Max.)
1. Define Adverse effects. What are the various types of adverse effects? Write briefly about teratogenicity.	11	35 min.	20
2. Describe about various methods of evaluation of anticancer drugs.	11	35 min.	20
 II. Write notes on :			
1. Bioavailability.	4	10 min.	6
2. Plasma half life.	4	10 min.	6
3. Guinea pig as an experimental animal.	4	10 min.	6
4. Competitive antagonism.	4	10 min.	6
5. Animal toxicity studies.	4	10 min.	6
6. Principles and indications of the bioassay.	4	10 min.	6
7. New drug delivery systems.	4	10 min.	6
8. Paired 'T' test.	4	10 min.	6
9. History of diabetes mellitus.	4	10 min.	6
10. Methods of testing drugs used in bleeding disorders.	4	10 min.	6

[LC 527] SUB CODE : 2145
M.D. (SIDDHA) DEGREE EXAMINATION – APRIL 2013
THIRD YEAR
BRANCH II – Gunapadam
PAPER III – APPLIED PHARMACOLOGY INCL. MEDICINAL
CHEMISTRY & BIOASSAY OF DRUGS
Q.P.Code : 322145

Time : 3 hrous

Maximum : 100 marks

I. Long Essay: (2x20=40)

1. Write a brief note on various routes of drug administration and discuss the limitations and advantages of the following routes for administration of drugs for systemic action:-
 1. Parentral
 2. Rectum
 3. Oral
2. Write in detail about the principles and procedures of screening of Anti-diabetic agents.

II. Short Notes: (10x6=60)

1. Discuss the application of following instruments in the screening of drugs used in mental illness:
 - a. Rotarod apparatus
 - b. Plethysmograph
2. Describe any two screening procedures for CNS depressants.
3. Write a brief note on Pylorus ligated ulceration in rats.
4. Explain the pharmacological importance of plasma protein binding
5. Describe a screening procedure for skeletal muscle relaxants.
6. Write a note on limitations of animals tests.
7. Explain any one animal model for the screening of Anti-hypertensive agents.
8. Discuss carageenan induced paw edema.
9. Give a brief note on MPTP induced Parkinsonism.
10. Write a note on acetic acid induced writhing test.

[LD 527]

SUB CODE : 2145

M.D. (SIDDHA) DEGREE EXAMINATION – OCTOBER 2013

THIRD YEAR

BRANCH II – Gunapadam

**PAPER III – APPLIED PHARMACOLOGY INCL. MEDICINAL
CHEMISTRY & BIOASSAY OF DRUGS**

Q.P.Code : 322145

Time : 3 hrous

Maximum : 100 marks

I. Long Essay:

(2x20=40)

1. Write a detailed account on thermal, clinical and mechanical stimuli used in the screening procedure of analgesics.
2. Discuss the various method of drug transfer through the biological barriers and factors affecting it.

II. Short Notes:

(10x6=60)

1. What is receptor? Classify according to transduction mechanism.
2. Write a brief account on MES induced convulsion.
3. Write a brief note on yeast induced pyrexia.
4. Write one screening method of local anasthetic.
5. Give a brief account on SO₂ induced cough.
6. Explain abnormal actions of drugs.
7. Give an account of 2 kidneys one clip method.
8. Write a note on adjuvant induced arthritis.
9. Write one screening model for Type-1 diabets mellitus.
10. Write a note on ANOVA.

**M.D. (SIDDHA) DEGREE EXAMINATION
THIRD YEAR**

Branch II - Gunapadam

**Paper III – APPLIED PHARMACOLOGY INCLUDING MEDICINAL
CHEMISTRY & BIOASSAY OF DRUGS**

Q.P. Code : 322145

Time : Three Hours

Maximum : 100 marks

I. Long Essay:

(2X20=40)

1. Classify Diuretics and write briefly about the pharmacological actions of high ceiling diuretics and how will you evaluate diuretic drugs.
2. Describe elaborately about the pharmacological actions of cardiotonics and how will you evaluate the drugs used for heart failure.

II. Short Notes:

(10X6=60)

1. Sources of drugs.
2. New Drug Delivery system.
3. Drug Interactions.
4. Cook pole apparatus.
5. Intradermal wheal method.
6. Cox-2 inhibitors.
7. Imipramine.
8. Writhing test.
9. Arthus reaction.
10. Limitations of animal studies.

[LF 2145]

OCTOBER 2014

Sub. Code: 2145

**M.D.(SIDDHA) DEGREE EXAMINATION
THIRD YEAR
BRANCH II - GUNAPADAM
PAPER III – APPLIED PHARMACOLOGY INCLUDING MEDICINAL
CHEMISTRY & BIOASSAY OF DRUGS**

Q.P. Code : 322145

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe the methods of testing drugs, used to relieve pain.
2. Classify Antihypertensive agents and discuss the pharmacological actions of Antihypertensive agents.

II. Write notes on:

(10 x 6 = 60)

1. Aims of animal tests.
2. Local anaesthetics.
3. Electroconvulsimeter.
4. Evaluation of anticancer drugs.
5. Abnormal action of drugs.
6. Yeast induced pyrexia.
7. Microbiological assay.
8. Beta blockers.
9. Anti convulsion drugs.
10. Primary screening of Drugs.

M.D. (SIDDHA) DEGREE EXAMINATION
THIRD YEAR
BRANCH II – GUNAPADAM
PAPER III – APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF DRUGS

Q.P. Code :322145

Time: Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Write a brief note on the following screening models?
 - 1) Spontaneously diabetic rats.
 - 2) CCL₄ induced hepatotoxicity.
 - 3) Cotton pellet granuloma pouch in rats.
 - 4) Microculture tetrazolium test (MTT).
2. Write detailed principles and procedures of screening of Anti-diabetic agents?

II. Write notes on:

(10 x 6 = 60)

1. Discuss the application of following instruments in the screening of drugs used in mental illness?
 - 1) Actophotometer.
 - 2) Radial arm-maze.
2. Describe any two screening procedures for CNS stimulants.
3. Write a brief note on Eddy's hot plate test.
4. Explain the pharmacological importance of drug-drug interaction.
5. Write a note on limitations of animal tests.
6. Write one screening procedure for cardiotonics.
7. Explain any one animal model for the screening of diuretics.
8. Discuss PTZ induced seizures in animals.
9. Give a brief note on MPTP induced Parkinsonism.
10. Write a note on Elevated plus maze test.

M.D.(SIDDHA) DEGREE EXAMINATION

THIRD YEAR

BRANCH II – GUNAPADAM

**PAPER III – APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF DRUGS**

Q.P. Code : 322145

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 20 = 40)

1. Write a detailed account on acute, subacute and chronic animal models used in the screening procedure of anti-inflammatory agents.
2. Discuss the various method of drug transfer through the biological barriers and factors affecting it.

II. Write notes on:

(10 x 6 = 60)

1. Explain the following terms:
 - (a) Synergism.
 - (b) Tachypylaxis.
2. Write a brief account on Bioassay.
3. Write a brief note on yeast induced pyrexia.
4. Write one screening method of skeletal muscle relaxants.
5. Give a brief account on SO₂ induced cough.
6. Explain abnormal actions of drugs.
7. Give an account of 2 kidney one clip method.
8. Describe the following tests:
 - (a) Tail suspension test.
 - (b) Tail flick test.
9. Write one screening model for anti-fertility agents.
10. Write a note on ANOVA.

**M.D. (SIDDHA) DEGREE EXAMINATION
THIRD YEAR
BRANCH II – GUNAPADAM
PAPER III – APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF DRUGS
Q.P. Code : 322145**

Time: Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe the role of H₂ receptor antagonists in the treatment of peptic ulcers and how will you evaluate the drugs used for treatment of gastric ulcers?
2. Classify anticancer agents and discuss the pharmacological actions of anti-metabolites and how will you evaluate anticancer agents.

II. Write notes on:

(10 x 6 = 60)

1. Methods of bioassay.
2. Bioavailability.
3. Aims of animal test
4. Rotarod.
5. Plethysmograph.
6. Cutaneous administration.
7. Methods of testing drug used in cough.
8. Calcium channel blockers.
9. Heparin.
10. Sex difference in response to drugs.

M.D.(SIDDHA) DEGREE EXAMINATION
THIRD YEAR
BRANCH II – GUNAPADAM
PAPER III – APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF DRUGS

Q.P. Code :322145

Time: Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Write detailed principles and procedures of screening of Anti-histamine agents?
2. Write a brief note on various routes of drug administration and discuss the limitations and advantages of the following routes for administration of drugs for systemic action?
 - 1) Sublingual.
 - 2) Subcutaneous.
 - 3) Oral.

II. Write notes on:

(10 x 6 = 60)

1. Give a detailed account on lab animals used in pharmacological screening of drugs.
2. Discuss any two screening procedures for anti-asthmatic agents.
3. Write a brief note on Volume of drug distribution.
4. Write short notes on formaldehyde induced nociception in mice.
5. Give one screening model for anti-arthritic agents.
6. Write the screening methods for anti-depressant drugs.
7. Write the methods of testing drugs, used to relieve pain?
8. Tests for anti-coagulants.
9. Write a note on NSAID induced ulceration in rats.
10. Explain the following terms: 1) IAEC.
2) Euthanasia.

[LL 2145]

OCTOBER 2017

Sub. Code: 2145

M.D. (SIDDHA) DEGREE EXAMINATION

THIRD YEAR

BRANCH II – GUNAPADAM

PAPER III – APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF DRUGS

Q.P. Code :322145

Time: Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe the role of cardiac glycosides in the treatment of heart failure and how will you evaluate the cardio tonics used for treatment of heart failure?
2. Classify analgesics and discuss the pharmacological actions and therapeutic uses of Morphine and how will you evaluate analgesic agents?

II. Write notes on:

(10 x 6 = 60)

1. Sources and forms of drug preparations.
2. Biological half-life.
3. Maximum electroshock method (MES-Test).
4. Dose response relationship.
5. Methods of testing local anaesthetics.
6. Adverse drug reactions.
7. Elevated plus maze.
8. Two kidney one clip method.
9. Stress and NSAID's induced ulcers.
10. Limitations of animal studies.

[LM 2145]

MAY 2018

Sub. Code: 2145

M.D. (SIDDHA) DEGREE EXAMINATION

THIRD YEAR

BRANCH II – GUNAPADAM

**PAPER III – APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF DRUGS**

Q.P. Code :322145

Time: Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Classify anti-epileptic drugs and write briefly about the pharmacological actions and how the drugs are evaluated in the treatment of epilepsy?
2. Describe elaborately about the pharmacological actions of Oral iron preparations and how will you evaluate the drugs used for treatment of Anaemia.

II. Write notes on:

(10 x 6 = 60)

1. Advantage and disadvantages of parenteral route.
2. Carrageenan induced hind paw.
3. Toxicity studies in animals.
4. Phases of clinical trials.
5. Shay rat method.
6. Tail suspension test.
7. Antifertility studies.
8. Methods of testing antidiabetic drugs.
9. Methods of testing drugs in cancer.
10. Primary screening of drugs.

[LN 2145]

OCTOBER 2018

Sub. Code: 2145

M.D. (SIDDHA) DEGREE EXAMINATION
THIRD YEAR
BRANCH II – GUNAPADAM
PAPER III – APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF DRUGS

Q.P. Code :322145

Time: Three Hours

Maximum : 100 Marks

I. Elaborate on: **(2 x 20 = 40)**

1. Discuss in detail the various drugs used in the management of Diabetes Mellitus.
2. Write detailed note on aims and methods of animal tests.

II. Write notes on: **(10 x 6 = 60)**

1. Write briefly on drug interactions.
2. Discuss in brief about beta adrenergic blockers.
3. Write a short note on Metronidazole.
4. Write briefly on drugs for Parkinsonism.
5. Discuss the methods of evaluation of anti-hypertensive drugs.
6. Write a note on heparin.
7. Interpolation assay.
8. Discuss the various methods of evaluating anti-inflammatory drugs.
9. Enumerate the anti-malarial drugs. Write briefly on their actions, adverse effects and uses of chloroquine.
10. Write a note on anti-coagulants.

[LO 2145]

MAY 2019

Sub. Code: 2145

M.D. (SIDDHA) DEGREE EXAMINATION
THIRD YEAR
BRANCH II – GUNAPADAM
PAPER III – APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF DRUGS

Q.P. Code :322145

Time: Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Bio-assay. Discuss in detail the various types of Bioassay.
2. Enumerate the drugs used for arrhythmia. Discuss in detail the screening procedures for anti-arrhythmic drugs.

II. Write notes on:

(10 x 6 = 60)

1. Write a short note on atropine.
2. Discuss the methods of Evaluation of anti-pyretic drugs.
3. Write a short note on Aminoglycosides.
4. Write briefly on evaluation of anti-epileptic drugs.
5. Discuss the management of anaemia.
6. Write a note on anti-emetics.
7. Write a note on ketoconazole.
8. Discuss the various methods of evaluating analgesic drugs.
9. Enumerate the Corticosteroids. Write briefly on their actions, adverse effects and uses.
10. Write a note on beta blockers.

[LP 2145]

OCTOBER 2019

Sub. Code: 2145

M.D. (SIDDHA) DEGREE EXAMINATION

THIRD YEAR

BRANCH II – GUNAPADAM

PAPER III – APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF DRUGS

Q.P. Code :322145

Time: Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss in detail the various routes by which drugs are excreted? Write a note on first order and zero order kinetics.
2. Enumerate the drugs used for peptic ulcer. Discuss in detail the methods of evaluation of anti – ulcer drugs.

II. Write notes on:

(10 x 6 = 60)

1. Write briefly on evaluation of local anaesthetics.
2. Evaluation of analgesics.
3. Write a short note on pencillins.
4. Write the methods to evaluate anti –anxiety drugs.
5. Discuss the drugs for angina.
6. Write a note on ant- histamines.
7. Matching assay.
8. Discuss the various methods of evaluating muscle relaxants.
9. Enumerate the anti-thyroid drugs. Write briefly on their actions, adverse effects and uses.
10. Write a note on adrenaline.

[LQ 2145]

**NOVEMBER 2020
(MAY 2020 SESSION)**

Sub. Code: 2145

M.D. (SIDDHA) DEGREE EXAMINATION

THIRD YEAR

BRANCH II – GUNAPADAM

**PAPER III – APPLIED PHARMACOLOGY INCLUDING
MEDICINAL CHEMISTRY AND BIOASSAY OF DRUGS**

Q.P. Code :322145

Time: Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Bioassay and outline the Indications and explain the different methods and importance of Bioassay.
2. Classify Antipsychotic drugs and explain briefly about the Pharmacological actions of Phenothiazine and how the drugs are evaluated in the treatment of Mental Disorders?

II. Write notes on:

(10 x 6 = 60)

1. Passages of drugs across cell Membrane.
2. Transcutaneous Route of drug Administration.
3. Factors Modifying drug actions.
4. Students Organ bath.
5. Tracheal chain method.
6. Charcoal meal method.
7. Evaluations of Haematimics.
8. Alloxan Diabetes.
9. Methods of testing Diuretics.
10. Plethysmograph.
