

April-2001

[KD 129]

Sub. Code : 2026

M.D. DEGREE EXAMINATION.

Branch VI — Pharmacology

(New/Revised Regulations)

Paper II — SYSTEMATIC PHARMACOLOGY
INCLUDING RECENT ADVANCES

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the recent advances in the Pharmacotherapy of depression. Add a note on their mechanism of action and current status in therapy. (25)
 2. Discuss the recent advances in the Pharmacotherapy of Non-insulin dependent diabetes mellitus. Add a note on their mechanism of action and current status in therapy. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Principles governing combined use of antimicrobials.
 - (b) Antiprogestins and their clinical uses.
 - (c) Mechanism of action of performance enhancing drugs in sports.
 - (d) Mechanism of action and clinical uses of acrolimus.
 - (e) Mechanism of action and current status in therapy of simvastatin.
-

November-2001

[KE 129]

Sub. Code : 2026

M.D. DEGREE EXAMINATION.

(New/Revised regulations)

Branch VI — Pharmacology

**Paper II — SYSTEMATIC PHARMACOLOGY
INCLUDING RECENT ADVANCES**

Time : Three hours

Maximum : 100 marks

1. Describe the pharmacological actions, uses and adverse effects of drugs modulating the functions of 5-hydroxy-tryptamine receptors. (25)
 2. Discuss the pharmacological and therapeutic aspects of CEPHALOSPORINS. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Calcium channel blocking agents.
 - (b) Beta lactamase inhibitors.
 - (c) Atypical antidepressants.
 - (d) Lys-Pro insulin.
 - (e) Intravenous anaesthetics.
-

March-2002

[KG 129]

Sub. Code : 2026

M.D. DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Branch VI — Pharmacology

Paper II — SYSTEMIC PHARMACOLOGY
INCLUDING RECENT ADVANCES

Time : Three hours

Maximum : 100 marks

1. Discuss the recent advances in the drug therapy of seizure disorders. Explain their mechanism of action and current status in clinical practice. (25)
 2. Discuss the pharmacology of Angiotensin Converting Enzyme (ACE) inhibitors and their role in therapeutics. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Adenosine.
 - (b) Low molecular weight heparins.
 - (c) Insulin sensitizers.
 - (d) Amifostine.
 - (e) Biphosphonates.
-

[KH 129]

Sub. Code : 2026

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch VI — Pharmacology

Paper II — SYSTEMIC PHARMACOLOGY
INCLUDING RECENT ADVANCES

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the recent advances in the pharmacotherapy of Schizophrenia. What is the current status of clozapine like drugs in therapy? (25)
 2. Critically discuss the advantages and disadvantages of female contraceptive agents. Add a note on the current status of Depot progestogen preparations in contraceptive use. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Drugs inhibiting DNA-gyrase system.
 - (b) Role of nucleoside reverse transcriptase inhibitors.
 - (c) Finasteride.
 - (d) Split-mixed dosage regimen of insulin.
 - (e) Role of Gemfibrozil in hyperlipidemic conditions.
-

April-2003

[KI 129]

Sub. Code : 2026

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch VI — Pharmacology

Paper II — SYSTEMIC PHARMACOLOGY
INCLUDING RECENT ADVANCES

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the recent advances in the pharmacotherapy of malaria. Add a note on their mechanism and current status in therapy. (25)
 2. Discuss the recent advances in the pharmacotherapy of convulsive disorders. Add a note on their mechanism of action and current status in therapy. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) 5-HT antagonists and their clinical uses
 - (b) III Generation cephalosporins
 - (c) Cyclooxygenase I sparing NSAID's
 - (d) Fluoroquinolones and their current status
 - (e) Drugs used in inflammatory bowel diseases.
-

[KJ 129]

Sub. Code : 2026

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch VI — Pharmacology

Paper II — SYSTEMIC PHARMACOLOGY
INCLUDING RECENT ADVANCES

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

M.C.Q. must be answered SEPARATELY on the
answer sheet provided as per the instructions on the
first page.

Answer ALL questions.

Draw suitable diagrams wherever necessary

1. Describe the current trends in drug therapy of
HIV and AIDS. Add a note on different drug regimes for
therapy. (15)

2. Describe the pharmacology of any 2 currently used
inhalation Anaesthetic agents. Add a note on their pre
anesthetic management. (15)

3. Write briefly on :

(10 × 5 = 50)

(a) Endogenous opioid peptides and opioid
receptors.

(b) Myeloid growth factors.

(c) Gn.Rh analogs.

(d) Uses of thyroxin and their basis.

(e) Ocular local anaesthetic.

(f) Recent approaches for drug therapy of
parkinsonism.

(g) Glucosamine.

(h) Radiation recall reaction.

(i) Nitrosoureas in cancer chemotherapy.

(j) Phosphodiesterase inhibitors.

[KL 129]

Sub. Code : 2026

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch VI — Pharmacology

Paper II — SYSTEMIC PHARMACOLOGY INCLUDING RECENT ADVANCES

Time : Three hours Maximum : 100 marks

Theory : Two hours and forty minutes	Theory : 80 marks
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M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay: (2 × 15 = 30)

(1) Discuss about hypolipidemic agents.

(2) Discuss the 5-hydroxy tryptaminergic agonists and antagonists.

II. Write short notes : (10 × 5 = 50)

(a) Low molecular weight heparins.

(b) Third generation cephalosporins.

(c) Newer anthelmintic drugs.

(d) **Finasteride.**

(e) **Ticlopidine.**

(f) Selective serotonin reuptake inhibitors.

(g) Recent advances in uses of Aspirin.

(h) Carvedilol.

(i) Insulin sensitizers.

(j) **Infiximale.**

February-2005

[KM 129]

Sub. Code : 2026

II. Write Short notes on :

(10 × 5 = 50)

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch VI — Pharmacology

Paper II — SYSTEMIC PHARMACOLOGY
INCLUDING RECENT ADVANCES

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.

Draw suitable diagrams wherever necessary.

I. Essay :

(2 × 15 = 30)

(1) Discuss the uses of Angiotensin converting Enzyme inhibitors in the treatment of cardio vascular disorders.

(2) Discuss the pharmacological basis of drugs used in Parkinsonism.

- (a) Adenosine
 - (b) Selective Estrogen Receptor Modulators
 - (c) Sumatriptan
 - (d) Albendazole
 - (e) Inhalational cortiosteroids
 - (f) Lamotrigene
 - (g) Zidovudine
 - (h) Low molecular weight heparins
 - (i) Drugs used in Alzheimer's disease
 - (j) Dimercaprol.
-

[KM 129]

[KO 129]

Sub. Code : 2026

M.D. DEGREE EXAMINATION.

Branch VI — Pharmacology

Paper II — SYSTEMIC PHARMACOLOGY
INCLUDING RECENT ADVANCES

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Describe the cytokine modulators useful in bronchial asthma.

(2) Describe the Tyrosine Kinase inhibitors in relation to recent advances in cancer Chemotherapy.

II. Write short notes on : (10 × 5 = 50)

(a) Botulinum toxin – steps in its action and clinical uses.

(b) Nitroglycerine – Biochemical mechanism of action and the development of tolerance.

(c) Statins – Pleiotropic effects.

(d) Receptor antagonists of vasopressin.

(e) Lithium – Molecular targets of action.

(f) Nitric oxide releasing drugs.

(g) Subtypes and Signalling of prostanoic receptors.

(h) Neurokinin – 1 receptor antagonists as antidepressants.

(i) COX – 2 and colon cancer prevention – A target.

(j) Drugs acting on Potassium Channels.

[KQ 125]

Sub. Code : 2026

M.D. DEGREE EXAMINATION.

Branch VI — Pharmacology

SYSTEMATIC PHARMACOLOGY INCLUDING
RECENT ADVANCES

Common to

Paper II — (Old/New/Revised Regulations)
(Candidates admitted from 1988–89 onwards)
and

Paper II — (For candidates admitted from
2004–2005 onwards)

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.

Draw suitable diagrams wherever necessary.

I. Essay :

1. Describe Phosphodiesterase super family and
discuss their therapeutic applications. (20)

2. Discuss the use of Enzyme Inhibitors in treatment
of Parkinson's Disease. (15)

3. Discuss the pharmacology of Beta Lactum
Antibiotics and their role in therapeutics. (15)

II. Write short notes on : (6 × 5 = 30)

(a) Monoclonal antibodies in cancer therapy.

(b) Insulin secretagogues in treatment of
diabetes mellitus.

(c) NMDA receptor antagonists in
pharmacotherapy.

(d) Artemisinins.

(e) Treatment of multidrug resistant
tuberculosis.

(f) Low molecular weight heparins.

[KR 127]

Sub. Code : 2024

M.D. DEGREE EXAMINATION.

Branch VI — Pharmacology

**SYSTEMATIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Common to

Paper II — (Old/New/Revised Regulations)

(Candidates admitted from 1988-89 onwards)

and

**Paper II — (For candidates admitted from 2004–2005
onwards)**

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. Essay :

**1. Discuss the role of Prostaglandins in therapy and
how the effects of Prostaglandins can be modified by
drugs. (20)**

**2. Discuss the role of Chrono-pharmacology in
Therapeutics. (15)**

**3. Write in detail about the Sodium Channel
blocking drugs. (15)**

II. Write short notes on : (6 × 5 = 30)

(a) Pharmacological immuno stimulation

**(b) Potassium homeostasis and the role of
catecholamines**

(c) Substance P receptor antagonists

(d) Protein kinase inhibitors

(e) Eptifibatide

(f) Eplerenone.

MARCH 2008

[KS 126]

Sub. Code : 2023

M.D. DEGREE EXAMINATION.

Branch VI — Pharmacology

SYSTEMATIC PHARMACOLOGY INCLUDING RECENT
ADVANCES

Common to all regulations

Q.P. Code : 202023

Time : Three hours

Maxium : 100 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

- I. Essay questions : $(2 \times 20 = 40)$
1. Discuss the pharmacology, limitations and recent advances of Renin Angiotensin Aldosterone System. (20)
 2. Illustrate with examples the Rational use of Antibiotics in chemotherapy. (20)
- II. Write Short notes on : $(10 \times 6 = 60)$
1. Aspirin resistance.
 2. Designer insulins.
 3. Clinical importance of types of local anaesthias.
 4. Carvedilol.
 5. Slow IV anaesthetic agents.
 6. Current trends of Antiplatelet agents.
 7. Non diuretic therapeutic utility of Diuretics.
 8. Extreme drug resistant Tuberculosis.
 9. Gemcitabine.
 10. Drug treatment of GERD.
-

March 2009

[KU 126]

Sub. Code: 2023

M.D. DEGREE EXAMINATION

**Branch VI – PHARMACOLOGY
(Common to all candidates)**

**Paper II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P. Code : 202023

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions : (2 x 20 = 40)

1. Outline the role of Nitric oxide in signal transduction in health and disease. List its implication for new drug development and pharmacotherapy.
2. Current status in pharmacotherapy of Parkinsonism.

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

1. Write about cannabinoid receptors. Add a note on cannabinoids in the treatment of obesity.
2. Aprepitant.
3. Treatment of diabetic ketoacidosis.
4. Octreotide.
5. Cox – 2 inhibitor and colon cancer prevention.
6. Drug dosing schedule in health and disease.
7. Treatment of chloroquine resistant falciparum malaria.
8. Pharmacokinetic principles of general anaesthesia.
9. Glycopeptide antibiotics.
10. Direct thrombin inhibitors.

September 2009

[KV 126]

Sub. Code: 2023

M.D. DEGREE EXAMINATION

**Branch VI – PHARMACOLOGY
(Common to all candidates)**

**Paper II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P. Code : 202023

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions : (2 x 20 = 40)

1. Describe the modification of GABA activity in the brain by drugs.
2. Describe the mechanism of action, spectrum and clinical uses of different generations of fluoroquinolones.

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

1. Drugs for carcinoid syndrome.
2. Diuretic resistance.
3. Nitazoxanide.
4. Role of interferons in hepatitis.
5. Neuraminidase inhibitors.
6. Tyrosine kinase inhibitors.
7. Monoclonal antibodies in cancer chemotherapy.
8. Gonadotropins.
9. Drugs modifying adenylyl cyclase function.
10. Recent advances in the pharmacotherapy of manic depressive psychosis.

March 2010

[KW 126]

Sub. Code: 2023

M.D. DEGREE EXAMINATION

**Branch VI – PHARMACOLOGY
(Common to all candidates)**

**Paper II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P. Code : 202023

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions :

(2 x 20 = 40)

1. Discuss the pharmacology of dyslipidaemias.
2. Describe in detail the pharmacology of drugs used in Type II diabetes Mellitus giving importance to the combination therapy.

II. Write short notes on :

(10 x 6 = 60)

1. Pleiotropic effects of statins.
2. Drug treatment of hypercalcemia.
3. Hypertensive emergencies.
4. Atypical antipsychotics.
5. Preanaesthetic medication.
6. Topical corticosteroids.
7. Adenosine.
8. Anastrozole.
9. Drugs used in cysticercosis.
10. Treatment of general toxicities encountered during anticancer therapy.

September 2010

[KX 126]

Sub. Code: 2023

M.D. DEGREE EXAMINATION

Branch VI – PHARMACOLOGY

**Paper II – SYSTEMIC PHARMACOLOGY INCLUDING RECENT
ADVANCES**

(Common to all candidates)

Q.P. Code : 202023

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions :

(2 X 20 = 40)

1. Discuss the Pharmacology of vasodilatory drugs used in therapeutics.
2. Discuss the clinically used drugs modifying the central excitatory neurotransmitters.

II. Write short notes on :

(10 X 6 = 60)

1. Diuretic resistance.
2. Drug treatment of supraventricular arrhythmias.
3. Rosuvastatin.
4. Pharmacokinetics of inhalation anaesthetics.
5. Potassium channel modulators.
6. Topical corticosteroids.
7. Fluoroquinolones.
8. Mechanism of action of antiepileptics.
9. Current trends of local anaesthetics.
10. Drugs used for induction of Ovulation.

MAY 2011

[KY 126]

Sub. Code: 2023

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

SYSTEMIC PHARMACOLOGY INCLUDING RECENT ADVANCES

Q.P. Code : 202023

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. Essay:			
1. Discuss the pharmacotherapy of hyperlipidaemia.	6	15	10
2. Discuss the role of monoclonal antibodies in pharmacotherapeutics.	6	15	10
II. Short Questions:			
1. Therapeutic uses of gonadotropins.	3	8	5
2. Repaglinide.	3	8	5
3. Blood brain barrier.	3	8	5
4. Therapeutic implications of circadian rhythms.	3	8	5
5. Progesterone receptor modulators.	3	8	5
6. Noncontraceptive health benefits of hormonal contraceptives.	3	8	5
7. Glucagon-like peptide 1.	3	8	5
8. Mechanism of action of tramadol.	3	8	5
III. Reasoning Out:			
1. Advantages of selective COX-2 inhibitors.	4	10	5
2. Use of beta adrenergic blockers in heart failure.	4	10	5
3. Adrenocortosteroids as anti-inflammatory drugs.	4	10	5
4. N-acetylcysteine in paracetamol poisoning.	4	10	5
IV. Very Short Answers :			
1. List therapeutic uses of thalidomide.	1	4	2
2. Mechanism of action of colchicine.	1	4	2
3. Mechanism of action of cyclophosphamide.	1	4	2
4. Adverse effects of nitrous oxide.	1	4	2
5. Mention therapeutic uses of dantrolene.	1	4	2
6. Mention adverse effects of succinylcholine.	1	4	2
7. List therapeutic uses of dobutamine.	1	4	2
8. Mention adverse effects of iron therapy.	1	4	2
9. List therapeutic uses of lignocaine.	1	4	2
10. List adverse effects of amphotericin.	1	4	2

April 2012

[KY 126]

Sub. Code: 2023

**M.D. DEGREE EXAMINATION
BRANCH VI – PHARMACOLOGY
SYSTEMIC PHARMACOLOGY INCLUDING RECENT ADVANCES
Q.P. Code : 202023**

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. Essay:			
1. Discuss the recent advances in the treatment of Hypertension.	9	15	10
2. Current status in the pharmacotherapy of Parkinsonism.	9	15	10
II. Short Questions:			
1. Tolperisone	3	8	5
2. Rosuvastatin	3	8	5
3. Low dose aspirin	3	8	5
4. Prokinetic drugs	3	8	5
5. Sitagliptin	3	8	5
6. Tocolytics	3	8	5
7. Uses and abuses of anabolic steroids	3	8	5
8. Atypical antipsychotics	3	8	5
III. Reasoning Out:			
1. Role of angiotensin Receptor blockers in congestive cardiac Failure.	5	10	5
2. Drug combination in hyperlipidemics.	5	10	5
3. Benzodiazepines as sedative – hypnotic.	5	10	5
4. N – Acetyl cysteine in paracetamol poisoning.	5	10	5
IV. Very Short Answers :			
1. Opioid Receptors sub types and their function.	1	4	2
2. Therapeutic and adverse effects of alpha blockers .	1	4	2
3. Advantages and disadvantages of Halothane.	1	4	2
4. Write the mechanism of action of oral anticoagulants.	1	4	2
5. Role of adrenaline in anaphylactic shock.	1	4	2
6. Rationale of pentazocine in Acute Myocardial Infarction.	1	4	2
7. Newer adjuvant therapy in osteoarthritis.	1	4	2
8. How will you manage obesity?	1	4	2
9. What is xenon?	1	4	2
10. Mention the endothelin antagonist and its therapeutic uses.	1	4	2

(LC 126)

APRIL 2013

Sub. Code: 2023

**M.D. DEGREE EXAMINATION
BRANCH VI-PHARMACOLOGY**

SYSTEMIC PHARMACOLOGY INCLUDING RECENT ADVANCES

Q.P. Code : 202023

Time: Three Hours

Maximum: 100 marks

I. Essay:

(2X10=20)

1. Write an essay on the pharmacology of insulin
2. Discuss recent advances in cancer chemotherapy

II. Short Questions:

(8X5=40)

1. Gonadotropins for fertility induction
2. Tocolytic therapy for preterm labour
3. Lenalidomide as an immunomodulator
4. Mitomycin
5. Nitrous oxide
6. Flutamide
7. Histamine H_3 receptor antagonists
8. Dexamethasone

III. Reasoning Out:

(4X5=20)

1. Diazepam in the treatment of anxiety disorder
2. Aspirin as an antiplatelet drug
3. N-acetylcysteine in the treatment of paracetamol poisoning
4. Flumazenil for benzodiazepine overdose

IV. Very Short Answers:

(10X2=20)

1. Name 4 drugs for falciparum malaria
2. Name 2 third generation cephalosporins
3. Name 2 anticancer antibiotics
4. Name 4 protein tyrosine kinase inhibitors
5. Name 2 major adverse effects of quinine
6. List 4 second-line antituberculous drugs
7. List 2 therapeutic uses of prazosin
8. List 2 potassium channel opening drugs
9. List 4 therapeutic uses of valproic acid
10. List 2 drugs for treating attention deficit hyperactivity disorder

[LD 126]

OCTOBER 2013

Sub. Code: 2023

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

SYSTEMIC PHARMACOLOGY INCLUDING RECENT ADVANCES

Q.P. Code : 202023

Time: Three Hours

Maximum: 100 marks

I. Essay:

(2 x 10 = 20)

1. Define monoclonal antibodies. Describe their usage in therapeutics.
2. Current status in the pharmacotherapy of Alzheimer's disease.

II. Short Questions:

(8 x 5 = 40)

1. Vorinostat
2. Prokinetic drugs
3. Use and abuse of anabolic steroids
4. Febuxostat
5. Use of Metronidazole in different diseases
6. Tamsulosin in benign prostatic hypertrophy
7. Define therapeutic index
8. Define placebo

III. Reasoning Out:

(4 x 5 = 20)

1. Drug combination in hyperlipidemics
2. Discuss safe and effective antibacterial therapy
3. Drugs acting on cell cycle
4. Pharmacotherapy of cutaneous leishmaniasis

IV. Very Short Answers:

(10 x 2 = 20)

1. Chemotherapy and radiation induced emesis
2. Mipomersen for familial hypercholesterolemia
3. Phospholipase A2 inhibiting drugs
4. Advantages and disadvantages of Propofol
5. Vasopressin receptor blockers in therapeutics
6. Opioids in General Anesthesia
7. What are Alpha-Tocopherols
8. CCR5 receptor antagonists in therapy
9. Advantages of Sevoflurane.
10. Aromatase inhibitors-use and adverse effects.

(LE 126)

APRIL 2014

Sub. Code:2023

**M.D. DEGREE EXAMINATION
BRANCH VI - PHARMACOLOGY
SYSTEMIC PHARMACOLOGY INCLUDING RECENT ADVANCES
Q.P.Code: 202023**

Time: Three Hours

Maximum: 100 marks

I. Essay:

(2X10=20)

1. Discuss the various drugs and its indications in community acquired pneumonia Management.
2. Discuss in detail the analgesic action & various routes of administration of opioid analgesics.

II. Short Questions:

(8X5=40)

1. Low molecular weight heparin
2. Dobutamine
3. Nebivolol
4. Dexmedetomidine
5. Topiramate
6. Tolvoptan
7. Dronedarone
8. Pegvisomant

III. Reasoning Out:

(4X5=20)

1. Ampicillin + Salbactam
2. GNRH antagonist in assisted reproduction technique
3. Fluticazone +Formoterol in asthma
4. Angiotension receptor blocker & hypertension

IV. Very Short Answers:

(10X2=20)

1. First dose phenomenon
2. Adenosine receptor types & function
3. Morphine & myocardial infarction
4. Prostaglandins in first stage of labor
5. Xenon
6. Isavuconazole
7. Vorinostat
8. Esmaprazole
9. Flupertine maleate
10. Iatrogenic cardio toxicity.

(LF 126)

OCTOBER 2014

Sub. Code:2023

**M.D. DEGREE EXAMINATION
BRANCH VI - PHARMACOLOGY**

**PAPER II - SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P.Code: 202023

Time: Three Hours

Maximum: 100 marks

I. Essay: (2 x 10 = 20)

1. Discuss in detail the pharmacology of drugs used in the treatment and prophylaxis of migraine.
2. Describe the pharmacotherapy of glaucoma.

II. Short Questions: (8 x 5 = 40)

1. Fourth generation cephalosporins.
2. Adverse effects of topical steroids.
3. Non-sedating antihistaminics.
4. Management of the toxic effects of anticancer drugs during therapy.
5. Insulin delivery devices.
6. Drugs used in Wilson's disease.
7. Flumazenil in benzodiazepine overdose.
8. Foscarnet.

III. Reasoning Out: (4 x 5 = 20)

1. Sildenafil in erectile dysfunction.
2. Combination of fluticasone and formoterol in asthma.
3. Intensive phase therapy in treating tuberculosis.
4. Once a month Rifampicin in leprosy therapy

IV. Very Short Answers: (10 x 2 = 20)

1. Brimonidine-uses
2. Non-Nucleoside Reverse Transcriptase Inhibitors-mechanism of action
3. Vitamin B₁₂ preparations.
4. Insulin Secretagogues.
5. Epoetin.
6. Alfa tocopherol.
7. Megaloblastic anemia in phenytoin overdose.
8. Mention two drugs used in Trigeminal neuralgia.
9. Polymyxin B.
10. List two drug regimens for M. avium complex infection.

[LG 126]

APRIL 2015

Sub. Code: 2023

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING RECENT ADVANCES

Q.P. Code : 202023

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essay:

(2 x 10 = 20)

1. Discuss in detail the drugs for myocardial ischemia.
2. Give a detailed update on the drug management of schizophrenia.

II. Short Questions:

(8 x 5 = 40)

1. Antiviral agents in Hepatitis C infection.
2. Role of clock genes in pharmacology.
3. Neuraminidase inhibitors.
4. Lenalidomide as an immunomodulator.
5. Polypharmacology.
6. Octreotide.
7. Drug resistant tuberculosis.
8. Adenosine.

III. Reasoning Out:

(4 x 5 = 20)

1. Antiseizure therapy in pregnancy.
2. Donepezil in Alzheimer's disease.
3. Ezetimibe in Hypercholesterolemia.
4. Aspirin for cardioprotection.

IV. Very Short Answers:

(10 x 2 = 20)

1. Lepirudin.
2. Mupirocin.
3. Reye's syndrome.
4. Folate deficiency.
5. Cabergoline.
6. Non contraceptive health benefits of oral contraceptives.
7. Mitotane.
8. Meropenem.
9. Capreomycin.
10. Raltegravir.

M.D. DEGREE EXAMINATION
BRANCH VI – PHARMACOLOGY
PAPER II – SYSTEMIC PHARMACOLOGY
INCLUDING RECENT ADVANCES

Q.P. Code : 202023

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Essay: **(2 x 10 = 20)**

1. Discuss the basic pharmacology of alpha receptor blockers and their therapeutic uses.
2. Describe the pathophysiology and pharmacology of drugs used in major depressive disorders.

II. Short Questions: **(8 x 5 = 40)**

1. NANC transmission.
2. Endothelin antagonists.
3. Hypertensive emergencies.
4. Non benzodiazepine anxiolytics.
5. Spasmolytic drugs.
6. Therapy of NSAID induced ulcers.
7. Ramelteon.
8. Conscious sedation.

III. Reasoning Out: **(4 x 5 = 20)**

1. Monday disease.
2. Ion channels as novel analgesic targets.
3. Ciclesonide in bronchial asthma.
4. Rationale for using TNF alpha blockers in rheumatoid arthritis.

IV. Very Short Answers: **(10 x 2 = 20)**

1. Autoreceptors.
2. Histamine receptors and their agonists.
3. Date rape drugs.
4. Therapeutic uses of botulinum toxin.
5. Alvimopan.
6. Acute nicotine toxicity.
7. Omega 3 fatty acids.
8. CGRP.
9. Vernakalant.
10. Renin inhibitors.

(LI 126)

APRIL 2016

Sub. Code:2023

M.D. DEGREE EXAMINATION
BRANCH VI – PHARMACOLOGY
PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES

Q.P.Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 10 = 20)

1. Describe the pathophysiology of heart failure and the recent advances in its management.
2. Discuss the current trends in management of Parkinsonism.

II. Short Questions:

(8 x 5 = 40)

1. Carbonic anhydrase inhibitors.
2. Newer antianginal drugs.
3. Z Drugs.
4. Ergot alkaloids.
5. Hypertensive emergencies.
6. Rasburicase.
7. PAF antagonists.
8. Cholinesterase regenerators.

III. Reasoning Out:

(4 x 5 = 20)

1. Prostaglandin analogs in obstetric use.
2. Role of synbiotics in bowel disorders.
3. Ion channels as novel analgesic targets.
4. Leukotriene antagonists in bronchial asthma.

IV. Very Short Answers:

(10 x 2 = 20)

1. Midodrine.
2. Icatibant.
3. Hyperthermic syndromes.
4. Neuropeptide Y.
5. Tapentadol.
6. EMLA.
7. Adenosine.
8. Vernakalant.
9. Acute nicotine toxicity.
10. Mechanism of action and Uses of botulinum toxin.

(LJ 126)

OCTOBER 2016

Sub. Code:2023

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

**PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P.Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 10 = 20)

1. Give a detailed account of the pharmacology of antimalarial drugs.
2. Discuss the drug therapy of dyslipidemia.

II. Short Questions:

(8 x 5 = 40)

1. Etoposide.
2. Treatment of Irritable bowel syndrome.
3. Omalizumab in severe asthma.
4. Vitamin B₁₂ therapy.
5. Drugs used in Alopecia.
6. Mifepristone.
7. Calcineurin inhibitors.
8. Mechanism of action of Tramadol.

III. Reasoning Out:

(4 x 5 = 20)

1. Angiotensin receptor blockers in congestive cardiac failure.
2. Sumatriptan in migraine.
3. Tamsulosin in Benign hypertrophy of prostate.
4. Naloxone in neonatal asphyxia.

IV. Very Short Answers:

(10 x 2 = 20)

1. Iatrogenic cardiac toxicity.
2. Melatonin.
3. Inhaled steroids.
4. Therapeutic Aptamers.
5. Rabeprazole.
6. Sunscreens.
7. Role of Rifampicin in the treatment of Leprosy.
8. Tegaserod.
9. Tadalafil.
10. Therapeutic uses of Thalidomide.

M.D. DEGREE EXAMINATION
BRANCH VI – PHARMACOLOGY
PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES

Q.P.Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay: **(2 x 10 = 20)**

1. Discuss the newer trends in management of cardiac arrhythmias.
2. Discuss the pharmacotherapy of peptic ulcer including the recent advances.

II. Short Questions: **(8 x 5 = 40)**

1. Resistant hypertension.
2. Z drugs.
3. Treatment of alcoholism.
4. Dopamine receptor agonists in parkinsonism.
5. Tetracyclic antidepressants.
6. ADH receptor antagonists.
7. Uses of sympathomimetics.
8. Short acting neuromuscular blockers.

III. Reasoning Out: **(4 x 5 = 20)**

1. Nitric oxide donors as smooth muscle relaxants.
2. Lithium as a mood stabilizer.
3. Ion channels as novel analgesic targets.
4. Diuretics and nephrolithiasis.

IV. Very Short Answers: **(10 x 2 = 20)**

1. Natriuretic peptides.
2. Autoreceptors.
3. Rasburicase.
4. Ramelteon.
5. Endogenous cannabinoids.
6. EMLA.
7. Bupropion.
8. Inodilators.
9. Adverse effects of ACE Inhibitors.
10. Mechanism of action of levetiracetam.

[LM 126]

MAY 2018

Sub. Code: 2023

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

**PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P.Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. Discuss the recent advances in the pharmacotherapy of parkinson's disease.
2. Write in detail about the current trends in the treatment of bronchial asthma.

II. Short notes:

(10 x 5 = 50)

1. Bier's block.
2. Pulmonary hypertension treatment.
3. False transmitter.
4. Cytoprotective drugs as antianginal agents.
5. Neprilysin inhibitor.
6. Hetastarch.
7. Serotonin syndrome.
8. Lubiprostone in constipation.
9. Cotransmission.
10. Molecular target for antiseizure drugs.

III. Reasoning Out:

(4 x 5 = 20)

1. Cox-3 inhibitors and its clinical implications.
2. Role of purinergic receptor blocker as antiplatelet agents.
3. Importance of beta blockers in angina.
4. Opioid induced constipation and its treatment.

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES

Q.P. Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. Classify pharmacological agents used in the treatment of congestive cardiac failure. Explain the mechanism of action of inotropic drugs in the treatment of cardiac failure. Mention the adverse effects and the uses of these drugs. What are recent advances in the treatment of cardiac failure?
2. Classify drugs used in the treatment of Parkinsonism. Explain the mechanism of action of these drugs. Mention the adverse effects and uses of these drugs. What are the recent advances in the treatment of parkinsonism?

II. Short notes:

(10 x 5 = 50)

1. Sympathomimetics used in ADHD.
2. Third generation beta blockers.
3. Newer anti epileptic drugs.
4. Recent trends in migraine therapy.
5. Mechanism of action of local anesthetics.
6. Atypical antipsychotics.
7. Treatment of hypertensive emergencies.
8. Recent advances in thromolytic therapy.
9. Newer drugs in treatment of osteoporosis.
10. Respiratory effects of opioids.

III. Reasoning Out:

(4 x 5 = 20)

1. Verapamil in arrhythmia.
2. Minoxidil in alopecia.
3. Terlipressin in esophageal varices.
4. Antiplatelet action of abciximab.

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

**PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P. Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay: (2 x 15 = 30)

1. a) What are the drugs known to inhibit eicosanoid biosynthesis?
b) Write briefly the clinical roles of eicosanoid in reproduction.
2. Discuss in detail the role of Organic Nitrates in the treatment of Angina. Enumerate the newer antianginal drugs. What are the drugs used in treatment of Peripheral Artery Disease?

II. Short notes: (10 x 5 = 50)

1. Sodium channel blockers.
2. Non cardiac effects of sympathomimetics.
3. Serotonin Norepinephrine reuptake inhibitors.
4. Ramipril.
5. Emergency contraception.
6. DMARDs.
7. Current status of Metformin.
8. Drug induced Parkinsonism.
9. Parenteral vasodilators.
10. Mycetism.

III. Reasoning Out: (4 x 5 = 20)

1. Thiazides as antihypertensives.
2. Morphine in acute left ventricular failure.
3. Use and misuse of purgatives.
4. Role of α_2 agonists as a muscle relaxant.

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

**PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P. Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. a) Enumerate the drugs that enhance cardiac perfusion.
b) Discuss the treatment for myocardial infarction with rationale.
c) Add a note on metabolic modifiers.
2. a) Discuss the pharmacology of first line drugs used in tuberculosis.
b) Mention the treatment of M.avium complex.

II. Short notes:

(10 x 5 = 50)

1. Drug therapy of Psoriasis.
2. Hematopoietic growth factors.
3. Palliative pain therapy.
4. Pharmacotherapy of smoking cessation.
5. Antiseizure therapy in pregnancy.
6. Febuxostat.
7. Probiotics and prebiotics.
8. Glucocorticoid antagonist.
9. Drugs affecting calcium balance.
10. Advantages of using enantiomers.

III. Reasoning Out:

(4 x 5 = 20)

1. Dexmedetomidine as adjuvant anesthetic.
2. Status of beta blockers in CCF.
3. Opioids as antitussives.
4. Thalidomide as Immunostimulant.

[LQ 126]

**AUGUST 2020
(MAY 2020 SESSION)**

Sub. Code: 2023

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

**PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P. Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay: (2 x 15 = 30)

1. Describe the actions of serotonin in physiological systems and the drugs affecting 5 HT signaling.
2. a. Discuss the cellular and molecular mechanisms of action of general anaesthetics.
b .Describe briefly the pharmacology of parenteral anaesthetics.

II. Short notes: (10 x 5 = 50)

1. Recent advances in pharmacotherapy of migraine
2. Natriuretic peptides
3. Clinical use of vasopressin agonists
4. Therapy of Alzheimers disease
5. Anti integrin agents
6. Compare the actions of various calcium channel blockers on the cardiovascular system
7. Drugs acting on Orexin receptors
8. Antisense oligonucleotides
9. Peroxisome proliferator activated receptor modulators
10. Drug induced pulmonary toxicity

III. Reasoning Out: (4 x 5 = 20)

1. Role of nondopamine receptors as targets for psychosis
2. Significance of nitric oxide as a therapeutic agent
3. Role of biologic response modifiers in rheumatoid arthritis
4. Guidelines for opiate dosing

[MD 0721]

JULY 2021
(MAY 2021 SESSION)
M.D. DEGREE EXAMINATION

Sub. Code: 2023

BRANCH VI – PHARMACOLOGY

**PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P. Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. a) Explain the different levels at which the drugs affect 5HT system.
b) Explain the pharmacology of ergot alkaloids.
2. a) Describe the pharmacological importance of aromatase inhibitors.
b) Explain the therapeutic uses of tamoxifen.

II. Short notes:

(10 x 5 = 50)

1. Varenicline.
2. Ketotifen.
3. Transdermal androgens.
4. Atracurium.
5. Pharmacokinetic importance of phenytoin.
6. Direct renin inhibitor.
7. Torasemide.
8. Sterol absorption inhibitor.
9. Abuse of purgatives.
10. Ototoxicity.

III. Reasoning Out:

(4 x 5 = 20)

1. Use of indomethacin for closure of patent ductus arteriosus.
2. Folic acid deficiency caused by drugs.
3. Use of mannitol for glaucoma.
4. Treatment of benzodiazepine dependence.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[MD 1121]

**NOVEMBER 2021
(OCTOBER 2021 SESSION)
M.D. DEGREE EXAMINATION**

Sub. Code: 2023

BRANCH VI – PHARMACOLOGY

**PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P. Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. a) Discuss in detail the mechanism of action, spectrum, indications and adverse effects of anti microbial drugs acting on ribosomal protein synthesis.
b) What are the mechanisms of resistance to these antibiotics?
2. a) What are the acute and chronic complications of diabetes mellitus? How will you manage?
b) Elaborate the mechanism of action, pharmacokinetics and adverse effects of the drugs used to manage the complications

II. Short notes:

(10 x 5 = 50)

1. Adrenomimetics
2. Third Generation Anti-histamines
3. Balanced Anaesthesia
4. Ubrogepant
5. Newer drug for Angina
6. Corticosteroid sparing agents in Bronchial Asthma
7. Drug induced Neutropenia and its management
8. Magnesium in Therapeutics
9. Radioimmunoconjugates
10. Morning after pill

III. Reasoning Out:

(4 x 5 = 20)

1. Anti-depressants act as analgesics
2. Combination Therapy of Angiotensin Receptor Blockers and Angiotensin converting enzyme inhibitors
3. Differences between Tamoxifen and Raloxifene
4. Resistance to anti cancer agents

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 0522]

MAY 2022

Sub. Code: 2023

**M.D. DEGREE EXAMINATION
BRANCH VI – PHARMACOLOGY**

**PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P. Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. a) Explain the therapeutic uses and ADRs of Diuretics.
b) Explain the roles of thiazides and desmopressin in diabetes insipidus.
2. a) Explain the nonendocrinal uses of glucocorticoids.
b) Write briefly about glucocorticoid synthesis inhibitors.

II. Short notes:

(10 x 5 = 50)

1. Nitric oxide donors.
2. Darbapoetin.
3. Bacterial resistance to antimicrobial agents.
4. Retinoids.
5. Therapeutic uses of clonidine.
6. Tizanidine.
7. Histamine release inhibitors.
8. Adalimumab.
9. Newer antiepileptic drugs.
10. Cefipime.

III. Reasoning Out:

(4 x 5 = 20)

1. Use of pseudoephedrine as a nasal decongestant.
2. Amiodarone use for many cardiac arrhythmias.
3. Aripiprazole as an antipsychotic.
4. Clinical use of Glutathione replenishing agent.

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 1022]

OCTOBER 2022

Sub. Code: 2023

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

**PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P. Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. a) Discuss in detail the pharmacology of drugs used in Chloroquine resistant malaria.
b) What are the regimens available for prophylaxis and management of malaria?
2. a) A 56 year old female patient was diagnosed with osteoporosis. How will you manage?
b) Elaborate the mechanism of action, pharmacokinetics and adverse effects of the drugs used to manage the patient.
c) What are the newer therapies for osteoporosis?

II. Short notes:

(10 x 5 = 50)

1. Inhibitors of breakdown of Catecholamines.
2. Drugs used in prophylaxis of migraine. Add a note on the recent advances.
3. Anti-seizure therapy and pregnancy.
4. Adenosine.
5. Newer drug targets for Bronchial asthma.
6. Drug induced anemia.
7. Lasmiditan.
8. Role of antioxidants.
9. Motilides.
10. Udenafil.

III. Reasoning Out:

(4 x 5 = 20)

1. Anti-arrhythmics are proarrhythmic.
2. Timing of administration of anti-depressant drugs.
3. Differences between aspirin and indomethacin.
4. Bortezomib for Multiple Myeloma.

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 0723]

JULY 2023

Sub. Code: 2023

(MAY 2023 EXAM SESSION)

M.D. DEGREE EXAMINATION

BRANCH VI – PHARMACOLOGY

PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING

RECENT ADVANCES

Q.P. Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. A Patient was on Warfarin, was added Indomethacin for arthritis pain, few days later patient presented with bleeding. In this setting
 - a) Explain the above drug interactions.
 - b) Write in detail on the method to monitor anticoagulant therapy.
 - c) Write the alternative anticoagulant drugs, requiring less stringent monitoring.
 - d) Add a note on SPAF, SPAF – II, SPAF –III Trials.
2. Discuss in detail about the Pharmacotherapy of Parkinsons Disease and add a note on recent advances in drug therapy for Parkinsons Disease.

II. Short notes:

(10 x 5 = 50)

1. Mechanism of action of Local Anesthetics with diagram and adverse effects.
2. Enumerate and discuss on drug combination with Methotrexate in treatment of Rheumatoid Arthritis.
3. Arrhythmogenic Potential of Potassium channel blockers and its clinical significance.
4. Intellectual Property Right.
5. Mechanism of drug induced renal dysfunction.
6. Precautions and Adverse effects of drugs used in the treatment of Infertility and its outcome.
7. Chemoprophylaxis and therapy of MAC infection.
8. Proteasome inhibitors.
9. Drugs altering skin pigmentation.
10. Neuroadaptive Mechanisms in Opioid dependence and treatment modalities.

III. Reasoning Out:

(4 x 5 = 20)

1. Compare adverse effects of Sympatholytics and Adrenergic Receptor Antagonists as Antihypertensives.
2. Measures to avoid, recognize and treat Digoxin toxicity.
3. Recent Drug therapy of ADHD.
4. Ivermectin versus Diethylcarbamazine citrate.

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 1223]

**DECEMBER 2023
(OCTOBER 2023 EXAM SESSION)**

Sub. Code: 2023

**M.D. DEGREE EXAMINATION
BRANCH VI – PHARMACOLOGY**

**PAPER II – SYSTEMIC PHARMACOLOGY INCLUDING
RECENT ADVANCES**

Q.P. Code: 202023

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. Write about Glutamate Receptors. Explain their Types and their Functional role.
2. Discuss the mechanisms for Platelet Aggregation and the drugs targeting them.

II. Short notes:

(10 x 5 = 50)

1. M3 selective Anti Muscarinic Drugs.
2. Centrally acting Anti Hypertensive Drugs.
3. Ezogabine.
4. Desmopressin.
5. Inodilators.
6. Icatibant.
7. Gonadotropin preparations and their uses.
8. Pharmacokinetics of Inhalational Anaesthetics.
9. Proton Pump Inhibitors – Current status.
10. Uricosuric Agents.

III. Reasoning Out:

(4 x 5 = 20)

1. Presynaptic beta receptors – compare with Presynaptic alpha receptors.
2. Use of Thiazide diuretics in Diabetes insipidus.
3. Non contraceptive uses of Oral Contraceptive Pills.
4. Drugs acting on 5 HT receptors in Migraine.
