

March-2007

[KQ 105]

Sub. Code : 2000

M.D. DEGREE EXAMINATION.

Branch I — General Medicine

Candidates admitted from 2004-2005 onwards

APPLIED BASIC SCIENCES IN MEDICINE

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
Twenty minutes**

Theory : 60 marks

M.C.Q. : Forty minutes

M.C.Q. : 40 marks

**Answer any TWO questions in each subject.
Draw suitable diagrams wherever necessary.**

(ANATOMY)

(2 × 5 = 10)

- 1. Describe the course, relations and branches of coronary arteries.**
- 2. Describe the movements of extra ocular muscle of eyeball.**
- 3. Describe the extent of different parts of pleura, its nerve supply blood supply and its recesses.**

March-2007

(PHYSIOLOGY)

(2 × 5 = 10)

4. Erythropoietin.
5. Describe nerve supply of urinary bladder.
6. Insulin receptor.

(BIOCHEMISTRY)

(2 × 5 = 10)

7. Functions of parathormone.
8. Prothrombin time.
9. Hypertriglyceridemia.

(MICROBIOLOGY)

(2 × 5 = 10)

10. Plasmodium falciparum.
11. Paramyxovirus.
12. Weil's disease.

(PHARMACOLOGY)

(2 × 5 = 10)

13. Insulin resistance.
14. Tricyclic antidepressants.
15. Adverse effects and uses of Aspirin.

(PATHOLOGY)

(2 × 5 = 10)

16. Cerebral embolism.
 17. Myeloma kidney.
 18. Molecular genetics of lung carcinoma.
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September-2007

[KR 105]

Sub. Code : 2000

M.D. DEGREE EXAMINATION.

Branch I — General Medicine

(Candidates admitted from 2004–2005 onwards)

APPLIED BASIC SCIENCES IN MEDICINE

Time: Three hours

Maximum : 100 marks

Theory : Two hours and
twenty minutes

Theory : 60 marks

M.C.Q. : Forty minutes

M.C.Q. : 40 marks

Answer any TWO short notes in each subject.

(ANATOMY) (2 × 5 = 10)

1. (a) Broncho pulmonary segments
(b) Foetal circulation
(c) Circle of Willis (circulus arteriosus).

(PHYSIOLOGY) (2 × 5 = 10)

2. (a) Calcitonin
(b) Blood-Brain Barrier
(c) Counter-current mechanism.

(BIOCHEMISTRY) (2 × 5 = 10)

3. (a) Fatty liver
(b) Tochoferol
(c) Acute intermittant porphysia.

(PHARMACOLOGY) (2 × 5 = 10)

4. (a) Treatment of chloroquine resistant Malaria
(b) Classify the anti-hypertensive drugs. Add a note on one latest anti hypertensive drug.
(c) DOTS Therapy.

(MICROBIOLOGY) (2 × 5 = 10)

5. (a) Chickungunya fever
(b) Immunoglobulins
(c) Bio-terrorism.

(PATHOLOGY) (2 × 5 = 10)

6. (a) Non Bacterial Thrombotic Endocarditis (NBTE)
(b) Non Cirrotic Portal Fibrosis (NCPF)
(c) Tumour Markers.

MARCH 2008

[KS 105]

Sub. Code : 2000

M.D. DEGREE EXAMINATION.

Branch I — General Medicine

(Candidates admitted from 2004–2005 onwards)

APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P.Code : 202000

Time : Three hours

Maximum : 100 marks

ANATOMY (Answer any FOUR questions) (4 × 5 = 20)

- I. (1) Blood supply of spinal cord.
 (2) Facial Nerve.
 (3) Pituitary gland.
 (4) Portal circulation.
 (5) Bowman's capsule.

PHYSIOLOGY (Answer any FOUR questions) (4 × 5 = 20)

- II. (1) Pulmonary function tests.
 (2) Measurement of cardiac output.
 (3) Iron Metabolism
 (4) Temperature regulation.
 (5) Physiology of consciousness.

BIOCHEMISTRY (Answer any THREE questions) (3 × 5 = 15)

- III. (1) Immunoglobulins.
 (2) Jaundice.
 (3) Oral glucose Tolerance test.
 (4) Hyperlipidemia.

PHARMACOLOGY (Answer any THREE questions) (3 × 5 = 15)

- IV. (1) Newer Insulins.
 (2) Antiamoebic drugs.
 (3) Drug addiction.
 (4) Antimitotics.

MICROBIOLOGY (Answer any THREE questions) (3 × 5 = 15)

- V. (1) Leishmaniasis.
 (2) Atypical Mycobacteria.
 (3) Filariasis.
 (4) Syphilis.

PATHOLOGY (Answer any THREE questions) (3 × 5 = 15)

- VI. (1) Non-Hodgkin's Lymphoma.
 (2) Acute Myeloid Leukemia.
 (3) Cirrhosis of Liver.
 (4) Small cell Lung cancer.

September 2008

[KT 105]

Sub. Code: 2000

M.D. DEGREE EXAMINATION

BRANCH I –GENERAL MEDICINE

(Candidates admitted from 2004-2005 onwards)

Paper I - APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code : 202000

Time : Three hours

Maximum : 100 marks

I. ANATOMY - Answer any FOUR questions. (4 X 5=20)

1. Pericardium
2. Occulomotor nerve
3. Adrenal gland
4. Spleen.
5. Nerve supply of the Bladder.

II. PHYSIOLOGY - Answer any FOUR questions. (4 X 5=20)

1. Physiology of aerobic exercise.
2. Sympatho – Adrenal system physiology
3. Hypothalamo – pitutary axis.
4. Ventilation – Perfusion Quotient.
5. Renin – Angiotensin physiology.

III. BIOCHEMISTRY - Answer any THREE questions. (3 X 5=15)

1. Kreb's cycle.
2. Acid – base balance.
3. Essential fatty acids.
4. Calcium metabolism.

IV. PHARMACOLOGY - Answer any THREE questions. (3 X 5=15)

1. Nitric oxide.
2. Drug interactions.
3. Sulfasalazine.
4. Vitamin Excess.

V. PATHOLOGY - Answer any THREE questions. (3 X 5=15)

1. Reid sternberg gaint cell.
2. Non – Caseating granuloma
3. Bridging Necrosis.
4. Cancer Genetics.

VI. MICROBIOLOGY - Answer any THREE questions. (3 X 5=15)

1. Cytomegalovirus.
 2. Pneumocystis infection.
 3. Gonococcal infection.
 4. Delta virus of Hepatitis.
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March 2009

[KU 105]

Sub. Code: 2000

M.D. DEGREE EXAMINATIONS

Branch I – GENERAL MEDICINE

(Candidates admitted from 2004 – 2005 to 2007-2008)

and (candidates admitted from 2008-2009 onwards)

Paper I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code : 202000

Time : Three hours

Maximum : 100 marks

I. ANATOMY - Answer any FOUR questions. (4 x 5=20)

1. Oculomotor Nerve.
2. Para thyroid gland.
3. Broncho-pulmonary segments.
4. Nervous control of urinary bladder.
5. Structure of pancreas.

II. PHYSIOLOGY - Answer any FOUR questions. (4 x 5=20)

1. Liver function tests.
2. Syndrome of shock.
3. Calcium metabolism.
4. Gut Hormones.
5. Thyroid function tests.

III. BIOCHEMISTRY - Answer any THREE questions. (3 x 5=15)

1. Serum protein Electrophoresis.
2. Porphyrin metabolism.
3. Glucose – 6 – phosphate dehydrogenase.
4. Abnormalities of potassium.

IV. PHARMACOLOGY - Answer any THREE questions. (3 x 5=15)

1. Newer Quinolones.
2. Anti-malarial drugs.
3. Anti-viral agents.
4. Oral hypoglycaemic agents.

V. PATHOLOGY - Answer any THREE questions. (3 x 5=15)

1. Chronic myeloid leukemia.
2. Renal manifestations of SLE.
3. Rheumatic Fever.
4. Brain Abscess.

VI. MICROBIOLOGY - Answer any THREE questions. (3 x 5=15)

1. Aspergillosis.
2. Pneumocystis carini.
3. Leprosy.
4. Mycoplasma.

September 2009

[KV 105]

Sub. Code: 2000

M.D. DEGREE EXAMINATIONS

Branch I – GENERAL MEDICINE

(Candidates admitted from 2004 – 2005 to 2007-2008)

and (candidates admitted from 2008-2009 onwards)

Paper I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code : 202000

Time : Three hours

Maximum : 100 marks

I. ANATOMY - Answer any FOUR questions.

(4 x 5=20)

1. Venous drainage of Brain
2. Optic Nerve
3. Thyroid Gland
4. Glomerulus
5. Pancreas

II. PHYSIOLOGY - Answer any FOUR questions.

(4 x 5=20)

1. Kidney function tests
2. Function of Para thyroid gland
3. Conduction system of Heart and ECG
4. Erythropoiesis and its regulation
5. Fat metabolism

III. BIOCHEMISTRY - Answer any THREE questions.

(3 x 5=15)

1. Plasma Proteins
2. Iron metabolism
3. Coagulation of blood
4. Gastric secretion and their hormones

IV. PHARMACOLOGY - Answer any THREE questions.

(3 x 5=15)

1. Antiretroviral Drugs
2. Anthelmintics
3. Anti arrhythmic drugs
4. Coagulants and Anticoagulants

V. PATHOLOGY - Answer any THREE questions.

(3 x 5=15)

1. Hodgkins disease
2. Acute Lymphoblastic Leukemia
3. Pericarditis
4. Pituitary Adenoma

VI. MICROBIOLOGY - Answer any THREE questions.

(3 x 5=15)

1. Extra pulmonary Tuberculosis
2. Cestode infestation
3. Leptospirosis
4. Extra intestinal amoebiasis

March 2010

[KW 105]

Sub. Code: 2000

M.D. DEGREE EXAMINATION

Branch I – GENERAL MEDICINE

Paper I – (for candidates admitted from 2004-2005 to 2007-2008) and

Part I – Paper I (for candidates admitted from 2008-2009 onwards)

APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code : 202000

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. ANATOMY

(4 x 5=20)

1. Mediastinum.
2. Coronary circulation.
3. Nerve supply of urinary bladder.
4. Blood supply of liver.

II. PHYSIOLOGY

(4 x 5=20)

1. Cardiogenic shock.
2. Physiology of micturition.
3. Hyponatraemia.
4. Liver function tests.

III. BIOCHEMISTRY

(3 x 5=15)

1. Glycosylated haemoglobin (HbA1C).
2. Dyslipidemia.
3. Glucose – 6 phosphate dehydrogenase deficiency.

IV. PHARMACOLOGY

(3 x 5=15)

1. Antiviral drugs.
2. Anthelmintic drugs.
3. Anti epileptics.

V. PATHOLOGY

(3 x 5=15)

1. Haemolytic anaemia.
2. Chronic myeloid leukemia.
3. Rapidly progressive glomerulonephritis.

VI. MICROBIOLOGY

(3 x 5=15)

1. Amoebiasis.
2. Herpes zoster.
3. Leptospirosis.

M.D. DEGREE EXAMINATIONS

BRANCH I –GENERAL MEDICINE

APPLIED BASIC SCIENCES IN GENERAL MEDICINE

**Paper I - (for candidates admitted from 2004 – 2005 to 2007-2008) and
Part I - (for candidates admitted from 2008-2009 onwards)**

Q.P. Code : 202000

Time : Three hours

Maximum : 100 marks

I. ANATOMY

(4 X 5=20)

1. Circle of Willis.
2. Conduction system of the heart.
3. Segments of the lung.
4. Collecting system of the kidney.

II. PHYSIOLOGY

(4 X 5=20)

1. Gut hormones.
2. Thyroid function tests.
3. Micturition reflex.
4. Renin-angiotensin system

III. BIOCHEMISTRY

(3 X 5=15)

1. Fat soluble vitamins.
2. Acid phosphatase.
3. Respiratory acidosis.

IV. PHARMACOLOGY.

(3 X 5=15)

1. Antithyroid drugs.
2. Statins.
3. Side effects of beta blockers.

V. PATHOLOGY

(3 X 5=15)

1. Paroxysmal nocturnal haemoglobinuria.
2. Non-Hodgkins lymphoma.
3. Multiple myeloma.

VI. MICROBIOLOGY

(3 X 5=15)

1. Tape worm.
2. Hepatitis C virus.
3. Candidiasis.

MAY 2011

[KY 105]

Sub. Code: 2000

**M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE
APPLIED BASIC SCIENCES IN GENERAL MEDICINE**

Q.P. Code : 202000

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

Maximum : 100 marks

Answer ALL questions in the same order.

Write notes on

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. ANATOMY			
1. Muscles of Respiration.	3	9	5
2. Right Atrium.	3	9	5
3. Vagus Nerve.	3	9	5
4. Development of Pancreas.	3	9	5
II. PHYSIOLOGY			
1. Enzymes involved in protein digestion.	3	9	5
2. Cough reflex.	3	9	5
3. Compensatory response of organs in Hypovolemic shock.	3	9	5
4. Bile acids.	3	9	5
III. BIOCHEMISTRY			
1. Essential Amino acids.	3	9	5
2. Vitamin E.	3	9	5
3. Prostaglandins.	3	9	5
IV. PHARMACOLOGY.			
1. Adverse effects of Phenytoin.	3	9	5
2. Quinine.	3	9	5
3. Vancomycin.	3	9	5
V. PATHOLOGY			
1. Type IV Hypersensitivity.	3	9	5
2. Types of Emphysema.	3	9	5
3. Pathological features of Alzheimer's disease.	3	9	5
VI. MICROBIOLOGY			
1. Chikungunya virus.	3	9	5
2. Lab diagnosis of leptospirosis.	3	9	5
3. Autoclave.	3	9	5

October 2011

[KZ 105]

Sub. Code: 2000

**M.D. DEGREE EXAMINATION
BRANCH I –GENERAL MEDICINE
APPLIED BASIC SCIENCES IN GENERAL MEDICINE**

Q.P. Code : 202000

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

Maximum : 100 marks

Answer ALL questions in the same order.

Write notes on :

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. ANATOMY			
1. Foetal circulation.	3	9	5
2. Facial nerve.	3	9	5
3. Internal capsule – composition and blood supply.	3	9	5
4. Broncho pulmonary segments.	3	9	5
II. PHYSIOLOGY			
1. Tests of gastric function.	3	9	5
2. Erythropoietin.	3	9	5
3. Blood Brain Barrier.	3	9	5
4. Physiology of micturition.	3	9	5
III. BIOCHEMISTRY			
1. Immunoglobulins.	3	9	5
2. Plasma enzyme in disease.	3	9	5
3. Iron metabolism.	3	9	5
IV. PHARMACOLOGY			
1. Anti retroviral drugs.	3	9	5
2. Newer anti platelet drugs.	3	9	5
3. Newer macrolides.	3	9	5
V. PATHOLOGY			
1. Bridging necrosis.	3	9	5
2. RPGN. (Rapidly Progressive Glomerulo Nephritis)	3	9	5
3. Lacunar Infarct.	3	9	5
VI. MICROBIOLOGY			
1. PCR in clinical medicine.	3	9	5
2. Serological tests of tuberculosis.	3	9	5
3. Hepatitis 'C' virus.	3	9	5

M.D. DEGREE EXAMINATION**BRANCH I –GENERAL MEDICINE****APPLIED BASIC SCIENCES IN GENERAL MEDICINE****Q.P. Code : 202000****Time : 3 hours
(180 Min)****Maximum : 100 marks****Answer ALL questions in the same order.****Write notes on**

Pages (Max.)	Time (Max.)	Marks (Max.)
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I. ANATOMY

1. Left ventricle.	3	9	5
2. Microscopic structure of lung.	3	9	5
3. Oculomotor nerve- course and sites of lesions.	3	9	5
4. Pituitary gland and its vasculature.	3	9	5

II. PHYSIOLOGY

1. Carbohydrate digestion.	3	9	5
2. Control of respiration.	3	9	5
3. Action potential and its applied physiology.	3	9	5
4. Renin Angiotensin Aldosterone system.	3	9	5

III. BIOCHEMISTRY

1. Metabolism and functions of Vitamin A.	3	9	5
2. Clinical importance of Glycogenolysis.	3	9	5
3. Acid phosphatase-isoforms and function.	3	9	5

IV. PHARMACOLOGY.

1. Adverse effects of Carbamazepine.	3	9	5
2. Insulin analogues-clinical use & benefits over human insulin.	3	9	5
3. Clinical advantages of Carbidopa.	3	9	5

V. PATHOLOGY

1. Anaphylaxis.	3	9	5
2. Parkinson's disease.	3	9	5
3. Atherosclerotic plaque.	3	9	5

VI. MICROBIOLOGY

1. Complement system.	3	9	5
2. Serological tests for syphilis.	3	9	5
3. Life cycle of hook worm.	3	9	5

**M.D. DEGREE EXAMINATION
BRANCH I –GENERAL MEDICINE
APPLIED BASIC SCIENCES IN GENERAL MEDICINE
Q.P. Code : 202000**

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

Maximum : 100 marks

Answer ALL questions in the same order.

Write notes on

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

I. ANATOMY

- | | | | |
|--|---|---|---|
| 1. Circle of Willis & its importance. | 3 | 9 | 5 |
| 2. Bronchopulmonary segments & its significance. | 3 | 9 | 5 |
| 3. Facial nerve -course & applied Anatomy. | 3 | 9 | 5 |
| 4. Microscopic structure of liver. | 3 | 9 | 5 |

II. PHYSIOLOGY

- | | | | |
|----------------------------------|---|---|---|
| 1. Conduction system of heart. | 3 | 9 | 5 |
| 2. Control of thyroid secretion. | 3 | 9 | 5 |
| 3. Urinary bladder control. | 3 | 9 | 5 |
| 4. Renal function tests. | 3 | 9 | 5 |

III. BIOCHEMISTRY

- | | | | |
|--|---|---|---|
| 1. Hydrochloric acid secretion in stomach. | 3 | 9 | 5 |
| 2. Bile pigment metabolism. | 3 | 9 | 5 |
| 3. Vitamin D-New concepts. | 3 | 9 | 5 |

IV. PHARMACOLOGY.

- | | | | |
|---|---|---|---|
| 1. Angiotensin receptor blockers-clinical use. | 3 | 9 | 5 |
| 2. Rosuvastatin-Indications, mechanism of action, benefits. | 3 | 9 | 5 |
| 3. Azithromycin-Indications, Adverse reactions. | 3 | 9 | 5 |

V. PATHOLOGY

- | | | | |
|--|---|---|---|
| 1. Acute hepatitis- gross structure & microscopic appearance. | 3 | 9 | 5 |
| 2. Post streptococcal glomerulonephritis-microscopic appearance. | 3 | 9 | 5 |
| 3. Structural lesions in Chronic bronchitis. | 3 | 9 | 5 |

VI. MICROBIOLOGY

- | | | | |
|--|---|---|---|
| 1. Structure and classification of Dengue virus. | 3 | 9 | 5 |
| 2. Lab diagnosis of tuberculosis. | 3 | 9 | 5 |
| 3. Microbiological diagnosis of Malaria. | 3 | 9 | 5 |

(LC 105)

APRIL 2013

Sub. Code: 2000

**M.D. DEGREE EXAMINATION
BRANCH I –GENERAL MEDICINE**

APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code: 202000

Time: Three Hours

Maximum: 100 marks

Write notes on:

I. ANATOMY (4X5=20)

1. Coronary arteries & its branches-clinical importance.
2. Pyramidal tract & its applied anatomy.
3. Microscopic structure of Kidney.
4. Lymphatic drainage of the lungs.

II. PHYSIOLOGY (4X5=20)

1. Describe Erythropoiesis.
2. Structure and Functioning of Neuromuscular junction.
3. Interpretation of Lung function tests.
4. Regulation of secretion of Pituitary hormones.

III. BIO-CHEMISTRY (3X5=15)

1. Neoglucogenesis and its importance.
2. Uric acid metabolism in health and disease.
3. Biological markers of malignancy.

IV. PHARMACOLOGY (3X5=15)

1. DPP IV inhibitors-Indications & clinical benefits.
2. Discuss Bosentan.
3. Clinical use of Carbapenams.

V. MICROBIOLOGY (3X5=15)

1. Microbes causing acute cystitis.
2. Classification of Bacterial food poisoning.
3. Hand washing-current importance.

VI. PATHOLOGY (3X5=15)

1. Lobar pneumonia.
2. Nephrotic syndrome.
3. Alcoholic cirrhosis.

[LD 105]

OCTOBER 2013

Sub. Code: 2000

M.D. DEGREE EXAMINATION

BRANCH I – GENERAL MEDICINE

APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code: 202000

Time: Three Hours

Maximum: 100 marks

Write notes on:

I. ANATOMY

(4 x 5 = 20)

1. Blood supply of Heart.
2. Meckel's Diverticulum.
3. Blood Brain Barrier.
4. Development of Lung.

II. PHYSIOLOGY

(4 x 5 = 20)

1. Splanchnic circulation.
2. Respiratory Alkalosis.
3. Febrinolytic System.
4. Countercurrent multiplier System.

III. BIO-CHEMISTRY

(3 x 5 = 15)

1. Electrophoretic Pattern of Proteins.
2. Lactic Acidosis.
3. Glycogenesis.

IV. PHARMACOLOGY

(3 x 5 = 15)

1. Daptomycin – Indications and Adverse Reactions.
2. Fibrates – Indications and side effects.
3. Sodium Nitroprusside.

V. MICROBIOLOGY

(3 x 5 = 15)

1. Serologic Tests for Syphilis.
2. Pathologic species and Diagnostic Laboratory Tests.
3. Laboratory Tests for Cryptococcus.

VI. PATHOLOGY

(3 x 5 = 15)

1. Silicosis and Lung.
2. Morphology of ASD.
3. Berger's disease and IgA Nephropathy.

[LE 105]

APRIL 2014

Sub. Code: 2000

**M.D. DEGREE EXAMINATION
BRANCH I –GENERAL MEDICINE**

APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code :202000

Time : Three Hours

Maximum : 100 marks

Write Notes on :

I. ANATOMY: (4X5=20)

1. Anatomy of cavernous sinus and its lesions.
2. Speech centre and its lesions.
3. Portal hypertension.
4. Cauda equina and its lesions.

II. PHYSIOLOGY: (4X5=20)

1. Coagulation cascade.
2. Surfactant.
3. ACE inhibition.
4. Ventricular remodeling.

III. BIO-CHEMISTRY: (3X5=15)

1. Markers of acute kidney injury.
2. ABG in respiratory diseases
3. Evaluation of Wilsons diseases.

IV. PHARMACOLOGY: (3X5=15)

1. Drug therapy of resistant hypertension.
2. Newer antidepressants.
3. Tolvaptan.

V. PATHOLOGY: (3X5=15)

1. Alcoholic liver injury.
2. Pathologic changes in Alzheimers disease.
3. Pathology of acute lung injury.

VI. MICROBIOLOGY: (3X5=15)

1. Serological diagnosis of HIV infection.
2. Diagnosis of leptospirosis.
3. Proinflammatory cytokines.

[LF 105]

OCTOBER 2014

Sub. Code: 2000

**M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE**

PAPER I - APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code: 202000

Time: Three Hours

Maximum: 100 marks

Write Notes on:

I. ANATOMY:

(4 x 5 = 20)

1. Lymphatic drainage of Lung.
2. Extra ocular muscles and actions.
3. Development of spleen.
4. Recurrent laryngeal nerve lesions.

II. PHYSIOLOGY:

(4 x 5 = 20)

1. Exocrine functions of pancreas.
2. Metabolic acidosis.
3. Erythropoiesis.
4. Sleep disorders.

III. BIO-CHEMISTRY:

(3 x 5 = 15)

1. Uric acid metabolism.
2. Thyroid function tests.
3. Urine tests for inborn errors of metabolism.

IV. PHARMACOLOGY:

(3 x 5 = 15)

1. Insulin degludec.
2. Newer antimalarials.
3. H1 blockers.

V. PATHOLOGY:

(3 x 5 = 15)

1. Primary intracranial tumours.
2. Restrictive cardiomyopathy.
3. Ulcerative colitis.

VI. MICROBIOLOGY:

(3 x 5 = 15)

1. Serological diagnosis of ebola.
2. Laboratory tests for atypical mycobacteria.
3. Transport media.

[LI 105]

APRIL 2016

Sub. Code: 2000

M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE
Q.P. Code :202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Venous drainage of rectum and anal canal.
2. Histology of kidney.
3. Development of heart.
4. Nerve supply of tongue.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Physiology of consciousness.
2. B lymphocyte functions.
3. Mechanism of deglutition.
4. Calcium metabolism.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Secretory functions of liver.
2. Respiratory alkalosis.
3. Growth hormone stimulation test.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Insulin analogs.
2. Newer macrolides.
3. Stem cell therapy.

V. PATHOLOGY: (3 x 5 = 15)

1. Pathology of Hodgkin's lymphoma.
2. Malabsorption syndrome.
3. Pathology of rickettsial infections.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Serology of hepatotropic viruses.
2. Bronchopulmonary aspergillosis.
3. Multi resistant mycobacterium tuberculosis.

[LJ 105]

OCTOBER 2016

Sub. Code: 2000

M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE
Q.P. Code :202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Broncho pulmonary segments.
2. Histology of Liver.
3. Anatomy of Facial nerve.
4. Name the intrinsic muscles of hand.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Pan systolic murmur.
2. Physiology of water balance.
3. Regulation of thyroid hormone synthesis.
4. Functions of neutrophils.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Alkaline Phosphatase enzyme.
2. Vitamin B₁₂.
3. Poly unsaturated fatty acids.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Classify Diuretics, add note on Metolazone.
2. Biologic therapy in treatment of malignancy.
3. Tenofovir.

V. PATHOLOGY: (3 x 5 = 15)

1. Pathological changes in stages of consolidation of Lung (Lobar pneumonia).
2. Pathology in cirrhosis of Liver.
3. Pathology of Rheumatic carditis.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Serological tests for Systemic Lupus Erythematosus.
2. Parvo virus infection.
3. Zika virus infection.

[LK 105]

MAY 2017

Sub. Code: 2000

M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE
Q.P. Code :202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Define Mediastinum, divisions of Mediastinum, contents of Superior Mediastinum.
2. Blood supply to Heart.
3. Pyramidal tract.
4. Portal vein.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Cardiac cycle.
2. Physiology of edema formation.
3. Gilbert's syndrome.
4. Continuous murmur.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. CORI'S cycle or Lactic acid cycle.
2. Vitamin D.
3. Bilirubin metabolism.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Biologicals in treatment of Rheumatoid arthritis.
2. Newer anti epileptic drugs.
3. Amiodarone.

V. PATHOLOGY: (3 x 5 = 15)

1. Pathology of Ulcerative colitis.
2. Renal pathology of Lupus Nephritis.
3. Pathology of Pernicious anemia.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Diagnostic tests for Leptospirosis infection.
2. Herpes simplex virus (HSV I & II).
3. Ziehl Neelson stained slide reporting scale for Myco bacterium tuberculosis.

M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code :202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Circle of Willis.
2. Muscles of Mastication.
3. Middle Mediastinum.
4. Innervation of urinary bladder.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Gastrocolic Reflex.
2. Ventilation – Perfusion Quotient.
3. Renin Angiotensin Mechanism.
4. T-Lymphocyte.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Respiratory Acidosis.
2. RBC Indices.
3. C-Reactive Protein.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Orciprenalin.
2. Rate controlling Calcium Channel Blockers.
3. Gut Sterilizers.

V. PATHOLOGY: (3 x 5 = 15)

1. Pathology of bronchiectasis.
2. Tumor Markers.
3. Nutmeg Liver.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Blood Culture for infective endocarditis.
2. CSF Analysis in Pyogenic Meningitis.
3. Laboratory test for Cryptococcus.

M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code :202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Accessory muscles of inspiration and expiration.
2. Porto systemic anastamosis.
3. Middle Cerebral artery.
4. Meckel's diverticulum.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Pavlov's Experiment.
2. Erythropoietin.
3. Physiological Deadspace.
4. Proximal convoluted tubule.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Renal function Test.
2. Serum Electrolytes.
3. Lipid Profile.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Recombinant Tissue Plasminogen activator.
2. Drug therapy for XDR-TB.
3. Common complications of Antibiotics.

V. PATHOLOGY: (3 x 5 = 15)

1. Pathogenesis of Diabetic Ketoacidosis.
2. Tuberculous Lymphadenitis.
3. Pathological changes in acute Myocardial infarction.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Blood Enteric culture.
2. Pleural Fluid Analysis.
3. Throat Swab.

M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE
Q.P. Code: 202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. The enteric nervous system.
2. Blood supply of brain stem.
3. Collecting system of kidney.
4. Sites of Porto systemic shunts.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Estimation of Glomerular filtration rate.
2. Osborne waves.
3. Physiology of consciousness.
4. Sertoli cells and spermatogenesis.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Brain natriuretic peptide.
2. Acid phosphatases.
3. Cyclooxygenase pathway.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Biosimilars – the future of Biological drugs.
2. DPP -4 inhibitors. (Di peptidyl Di peptidase 4 inhibitors).
3. Echinocardins.

V. PATHOLOGY: (3 x 5 = 15)

1. Genetic anticipation.
2. Urine Microscopy.
3. Autoimmune Poly endocrine syndrome.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Paromyxoviruses.
2. Soil transmitters.
3. C1 inhibitor Deficiency.

M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE
Q.P. Code: 202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Gut Hormones.
2. Pathway of proprioceptive impulses.
3. Bowman's capsule.
4. Extent of different parts of pleura, nerve supply and its recesses.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Counter current mechanism.
2. Components of blood and its uses.
3. Neuro transmitters.
4. Cells of pancreas.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Biotin.
2. Bence Jones protein.
3. NADPH (Nicotinamide Adenine Dinucleotide Phosphate Hydrogen).

IV. PHARMACOLOGY: (3 x 5 = 15)

1. PC SK9 Inhibitors. (Proprotein convertase subtilisin kexin 9 inhibitors).
2. Newer SGLT2 Inhibitors (sodium glucose co transporters 2 inhibitors).
3. Combination anti retro viral therapy.

V. PATHOLOGY: (3 x 5 = 15)

1. Bridging necrosis.
2. Myeloma kidney.
3. Molecular genetics of lung carcinoma.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Immuno histochemistry.
2. Fusariosis.
3. Serum galactomannan test.

M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code: 202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Conducting system of heart.
2. Facial nerve.
3. Nerve supply of bladder.
4. Parathyroid gland.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Cardiogenic shock.
2. Hyponatremia.
3. Thyroid function test.
4. Regulation of pituitary hormones.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Biological markers of malignancy.
2. Electrophoretic pattern of function.
3. ABG in respiratory diseases.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Incretins.
2. Levetiracetum.
3. Amiodarone.

V. PATHOLOGY: (3 x 5 = 15)

1. Pathology of rheumatic carditis.
2. Pathology of cirrhosis.
3. Renal manifestation of SLE.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Deep mycosis.
2. Extra intestinal manifestation of amebiasis.
3. Weils diseases.

**M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE
Q.P. Code: 202000**

Time : Three Hours**Maximum : 100 Marks****Write Notes on:****I. ANATOMY: (4 x 5 = 20)**

1. Bronchopulmonary segments.
2. Cross section of spinal cord.
3. Liver histology.
4. Circle of Willis.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Coagulation cascade.
2. Hypokalaemia.
3. Liver function tests.
4. Pan systolic murmurs.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Glycosylated haemoglobin HbA1c.
2. Respiratory alkalosis.
3. Glucose 6 phosphate dehydrogenase deficiency.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Thrombolytic therapy.
2. Alpha 1 agonists.
3. Newer antiepileptic drugs.

V. PATHOLOGY: (3 x 5 = 15)

1. Pathology of kidney in nephrotic syndrome.
2. Pathological changes in stages of lobar pneumonia.
3. Caseation.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Multidrug resistant tuberculosis.
2. Hepatitis D virus.
3. Corona virus infection.

[LS 105]

**NOVEMBER 2020
(OCTOBER 2020 SESSION)**

Sub. Code: 2000

**M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE**

PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code: 202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Intrinsic muscles of hand.
2. Spinal cord - Blood supply.
3. Coronary Circulation.
4. Mediastinum.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Brown sequard syndrome.
2. Spinal shock.
3. Physiology of micturition.
4. Functions of Neutrophil .

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Kreb's cycle.
2. Vitamin B12.
3. Dyslipidaemias.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Anti arrhythmic drugs.
2. Stem cell therapy.
3. Insulin analogs.

V. PATHOLOGY: (3 x 5 = 15)

1. Chronic Myeloid Leukaemia.
2. Rapidly Progressive Glomerular Disease.
3. Malabsorption syndrome.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Serological tests for Systemic Lupus Erythematosus.
2. Hook worm.
3. Zika virus infection.

[MD 0721]

**JULY 2021
(MAY 2021 SESSION)**

Sub. Code: 2000

**M.D. DEGREE EXAMINATION
BRANCH I – GENERAL MEDICINE**

PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code: 202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Parietal pleura.
2. Brachial plexus.
3. Nervous control of urinary bladder.
4. Pituitary gland.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Addisonian crisis.
2. Purkinje fibres.
3. Aortic pressure.
4. Brain edema.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Vitamin – C.
2. Hyperuricemia.
3. Hypomagnesemia.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Ivermectin.
2. Opioids.
3. Methotrexate.

V. PATHOLOGY: (3 x 5 = 15)

1. Amyloid kidney.
2. Nutmeg liver.
3. Pathology of multiple sclerosis.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Zika virus.
2. Epidemic typhus.
3. Delayed hypersensitivity.

[MD 1121]

**NOVEMBER 2021
(OCTOBER 2021 SESSION)**

Sub. Code: 2000

M.D. DEGREE EXAMINATION

BRANCH I – GENERAL MEDICINE

PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code: 202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Broncopulmonary segments.
2. Arterial supply of heart.
3. Cavernous sinus.
4. Muscles of Mastication.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Reticulo endothelial system.
2. Ectopic pacemaker.
3. Pancreatic digestive enzymes.
4. Cerebro spinal fluid.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Vitamin – K.
2. Trans fatty acid.
3. Serotonin.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Recombinant tissue plasminogen activators.
2. GLP 1 receptor agonists.
3. Amphotercin B.

V. PATHOLOGY: (3 x 5 = 15)

1. Cytokines.
2. Diabetic nephropathy.
3. Caseation necrosis.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Diptheria.
2. SARI (SEVERE ACUTE RESPIRATORY ILLNESS).
3. Innate immunity.

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

[MD 0522]

MAY 2022

Sub. Code: 2000

M.D. DEGREE EXAMINATION

BRANCH I – GENERAL MEDICINE

PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code: 202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Facial Nerve-applied anatomy.
2. Juxtaglomerular apparatus.
3. Cavernous sinus.
4. Internal capsule.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Exocrine functions of pancreas.
2. Surfactants.
3. Erythropoiesis.
4. Neuromuscular junction.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Congenital hyperbilirubinaemia.
2. Haemoglobin Electrophoresis.
3. Acute intermittent Porphyria.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Newer Oral Hypoglycemic agents.
2. Newer Macrolides.
3. Chloroquin.

V. PATHOLOGY: (3 x 5 = 15)

1. Pathology of Emphysema.
2. Non Hodgkin's lymphoma.
3. Cancer genetics.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Immunological changes following Covid 19 infection.
2. HIV virus.
3. Atypical Mycobacterium.

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

[MD 1022]

OCTOBER 2022

Sub. Code: 2000

M.D. DEGREE EXAMINATION

BRANCH I – GENERAL MEDICINE

PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code: 202000

Time: Three Hours

Maximum: 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Cisterna chyli.
2. Describe Respiratory unit.
3. Bladder Innervation.
4. Cross section of upper medulla and its applied anatomy.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Countercurrent Mechanism.
2. Endocrine functions of pancreas.
3. Pulmonary Function Test.
4. Physiology of sleep mechanism.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Neoglucogenesis and its importances.
2. Bilirubin metabolism.
3. Vitamin D new concepts.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Classify antihypertensive drugs.
2. Newer antimalarial drugs.
3. Anti retroviral drugs.

V. PATHOLOGY: (3 x 5 = 15)

1. Pathological changes following Acute Coronary Syndrome.
2. Lupus Nephritis - HPE.
3. Multiple myeloma.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Covid 19 vaccines.
2. Mycoplasma.
3. Immunological changes in HIV infection.

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

[MD 0723]

**JULY 2023
(MAY 2023 EXAM SESSION)**

Sub. Code: 2000

M.D. DEGREE EXAMINATION

BRANCH I – GENERAL MEDICINE

PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code: 202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Venous Drainage of brain.
2. Segments of Liver and its Blood circulation.
3. Lymphatic Drainage of Gastrointestinal Tract.
4. Cross section of Spinal cord at C5 level and its Applied Anatomy.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Physiology of Deglutition.
2. Hemostasis.
3. Anterior Pituitary Hormones and its control.
4. Functions of Carotid body.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Free radicals and Antioxidants.
2. Free Fatty Acids and Myocardial Metabolism.
3. Vitamin D and Calcium Metabolism.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Classification of Antifungal Drugs.
2. Newer Anticoagulants.
3. Biologics in Bronchial Asthma.

V. PATHOLOGY: (3 x 5 = 15)

1. Pathology of Amyloidosis.
2. Pathology of Varicocele and its clinical significance.
3. Histopathology of Hodgkin's lymphoma.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Atypical Mycobacterium Tuberculosis.
2. Classification of Influenza Virus and its clinical significance.
3. Rabies Virus.

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

[MD 1223]

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

Sub. Code: 2000

M.D. DEGREE EXAMINATION

BRANCH I – GENERAL MEDICINE

PAPER I – APPLIED BASIC SCIENCES IN GENERAL MEDICINE

Q.P. Code: 202000

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Anatomy of the Thoracic Duct.
2. Artery of Percheron and its importance.
3. Triangle of KOCH with diagrammatic representation.
4. Space of Disse, diagrammatic representation and its importance.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Feedback Loop of Blood Osmolality.
2. Modulation of Pain transmission.
3. Thyroid hormone synthesis and secretion.
4. Adrenal hormone synthesis pathway.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Ionic components concentration in the extracellular and intracellular fluid.
2. High energy phosphates.
3. Essential Aminoacids.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Rhythm control drugs in Atrial Fibrillation.
2. Edrophonium.
3. Bupropion.

V. PATHOLOGY: (3 x 5 = 15)

1. Necroptosis and Pyroptosis.
2. Trinucleotide repeat mutations.
3. Adaptive Immune System.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Bacterial Plasmids.
2. Biofilms.
3. Orthomyxoviruses.
