

April-2001

[KD 187]

Sub. Code : 9000

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch XVII — Tuberculosis and Respiratory Diseases

Part I

Paper I — APPLIED BASIC SCIENCES

Time : Three hours

Maximum : 180 marks

Answer each subject in a separate answer book.

Answer any FOUR questions in each subject.

All questions carry equal marks.

(ANATOMY)

1. (a) Mediastinal surface of Right Lung
(b) Thoracic Inlet Syndrome
(c) Microscopic anatomy of trachea
(d) Azygos Lobe
(e) Bronchial Veins.

(PHYSIOLOGY)

2. (a) Role of 2-3 DPG in respiration
(b) Non-respiratory functions of the lung
(c) Pressures within the thorax and their importance
(d) CO_2 Homeostases
(e) Haldane effect.

(BIOCHEMISTRY)

3. (a) Prostaglandins in respiratory physiology
(b) Anaphylactic substances
(c) Vitamin A in respiratory diseases
(d) Diagnostic importance of enzymes in fluid
(e) IgE.

(PHARMACOLOGY)

4. (a) Terfenadine
(b) Pyrazinamide
(c) Drugs for Bronchogenic Carcinoma
(d) Reverse transcriptase inhibitor
(e) Sparfloxacin.

(PATHOLOGY)

5. (a) Non atopic asthma
(b) Pulmonary surfactants
(c) Sarcoidosis of lungs
(d) Paediatric tuberculosis
(e) Pathology of pleural tumours.

(MICROBIOLOGY)

6. (a) Atopy
(b) Primary atypical pneumonia
(c) Respiratory syncytial virus
(d) Opportunistic mycoses
(e) PCR.

March-2002

[KG 187]

Sub. Code : 9000

M.D. DEGREE EXAMINATION.

(New/Revised Regulations)

Branch XVII — Tuberculosis and Respiratory Diseases

Part I

Paper I — APPLIED BASIC SCIENCES

Time : Three hours

Maximum : 180 marks

Answer each subject in a separate answer book.

Answer any FOUR short notes in each subject.

All questions carry equal marks.

(ANATOMY)

- 1 (a) Air Blood Barrier.
- (b) Cardiac Plexus.
- (c) Fibrous Pericardium.
- (d) Recesses of Pleura.
- (e) Internal Thoracic Artery.

(PHYSIOLOGY)

- 2 (a) Chemo receptors in regulation of Respiration.
- (b) Spirometry.
- (c) Applied Bronchoscopy.
- (d) Pulmonary Alveolar Proteinosis.
- (e) Work of Breathing.

(BIOCHEMISTRY)

- 3 (a) Functions of Complements
(b) Cystic Fibrosis of the Lungs
(c) Respiratory Alkalosis
(d) Leucotrienes
(e) 2,3 Bisphospho glycerate

(PATHOLOGY)

- 4 (a) Paraneoplastic Syndrome.
(b) Fibro Caseous Tuberculosis
(c) Centri acinar emphysema.
(d) Bronchogenic Carcinoma – Histological Types
(e) Progressive massive fibrosis

(PHARMACOLOGY)

- 5 (a) Aminoglycosidic antibiotics.
(b) Role of corticosteroids in respiratory diseases
(c) Anti tussives
(d) Cotrimoxazole.
(e) Rifampicin

(MICROBIOLOGY)

- 6 (a) Polymerase chain reaction
(b) Mutation.
(c) Influenza virus.
(d) Ziehl Neelsen's staining.
(e) Atypical mycobacteria.

[KH 187]

Sub. Code : 9000

M.D. DEGREE EXAMINATION

(Revised Regulations)

Branch XVII - Tuberculosis and Respiratory Diseases

Part I

Paper I — APPLIED BASIC SCIENCES

Time : Three hours

Maximum : 180 marks

Answer each subject in a separate answer book

Answer any FOUR short notes in each Subject

All questions carry equal marks

(ANATOMY)

- 1 (a) Sinuses of Pericardium
- (b) Hilum of Right Lung
- (c) Intercostal Muscles
- (d) Middle Lobe Syndrome
- (e) Microscopic Anatomy of Trachea

(PHYSIOLOGY)

- 2 (a) Bohr effect
(b) Intrapleural Pressure
(c) Reflex factors regulating Respiration
(d) Dysbarism
(e) Alveolar Ventilation

(BIOCHEMISTRY)

- 3 (a) Plasma buffers
(b) Pleural fluid Biochemical analysis
(c) Carboxy Haemoglobin
(d) Hypoxic hypoxia
(e) Antioxidants

(PATHOLOGY)

- 4 (a) Bronchial asthma
(b) Paediatric tuberculosis
(c) Pan-Acinar Emphysema
(d) Asbestose induced lung lesions
(e) Cause of hypersensitivity in tuberculosis

(PHARMACOLOGY)

- 5 (a) Bronchodilator
(b) Ipratropium Bromide
(c) Treatment of Tuberculosis in AIDS patients
(d) Clarithromycin
(e) Newer drugs in the treatment of tuberculosis

(MICROBIOLOGY)

- 6 (a) Hay fever
(b) Occult filariasis
(c) Viral causes of acute respiratory illness
(d) Pulmonary aspergillosis
(e) Adeno virus

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch XVII — Tuberculosis and Respiratory Diseases

Part I

Paper I — APPLIED BASIC SCIENCES

Time : Three hours

Maximum : 180 marks

Answer each subject in a separate answer book.

Answer any FOUR short notes in each subject.

All questions carry equal marks.

(ANATOMY)

1. (a) Mechanism of Respiration
(b) Supra Pleural Membrane
(c) Alveolar cells
(d) Hilar Nodes
(e) Root of Lung.

(PHYSIOLOGY)

2. (a) Concept of P
(b) Hypoxia
(c) Functional Residual Capacity
(d) Dyspnea index
(e) Nitrogen Narcosis.

(BIOCHEMISTRY)

3. (a) Respiratory distress syndrome
(b) Immunoglobulin E
(c) Lecithin – Sphingomyelin Ratio
(d) Mitochondrial Electron Transport chain
(e) Vitamin E.

(PATHOLOGY)

4. (a) Bronchiolo alveolar carcinoma
(b) Pulmonary embolism
(c) Löffler's syndrome
(d) Centri acinar emphysema
(e) Malignant Mesothelioma.

(PHARMACOLOGY)

5. (a) Drugs for Pseudomonas Infection
(b) Azetamazole
(c) Streptomycin
(d) Ethambutol
(e) INH.

(MICROBIOLOGY)

6. (a) Pneumocystis carinii
(b) Legionella pneumophila
(c) Respiratory syncytial virus
(d) Mucormycosis
(e) PCR.

[KJ 187]

Sub. Code : 9000

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch XVII — Tuberculosis and Respiratory Diseases

Part I

Paper I — APPLIED BASIC SCIENCES

Time : Two hours

Maximum : 75 marks

Theory : One hour and
forty five minutes

Theory : 60 marks

M.C.Q. : Fifteen minutes

M.C.Q. : 15 marks

M.C.Q. must be answered in the **SEPARATE** answer
sheet provided as per instructions given on the first
page of M.C.Q. Booklet.

Answer each subject in a **SEPARATE** answer book.

Answer any **FOUR** Short Notes in each subject.

All questions carry equal marks.

SECTION A

(ANATOMY)

(4 × 5 = 20)

1. (a) Superior Mediastinum.
(b) Lymphatic drainage of Thorax.
(c) Development of Lung.

- (d) Thoracic movements and Respiration.
(e) Diaphragm.

(PHYSIOLOGY)

(4 × 5 = 20)

2. (a) Methods of Artificial Respiration.
(b) Oxygen Dissociation Curve.
(c) High Altitude and Acclimatization.
(d) Ventilatory Function Test.
(e) Caisson's disease.

(BIOCHEMISTRY)

(4 × 5 = 20)

3. (a) Tumor markers.
(b) Pulmonary surfactant.
(c) Test for evaluating foetal lung maturity.
(d) Respiratory alkalosis.
(e) Biochemical composition of Pleural fluid.

[KJ 187]

[KL 187]

Sub. Code : 9000

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch XVII — Tuberculosis and Respiratory Diseases

Part I

Paper I — APPLIED BASIC SCIENCES

Time : Two hours

Maximum : 75 marks

Theory : One hour and
forty five minutes

Theory : 60 marks

M.C.Q. : Fifteen minutes

M.C.Q. : 15 marks

Answer each subject in a **SEPARATE** answer book.

Answer any **FOUR** Short Notes in each subject.

All questions carry equal marks.

SECTION A

ANATOMY

(4 × 5 = 20)

- (a) Contents of superior mediastinum
- (b) Development of lung
- (c) Thoracic duct
- (d) Attachments and openings of diaphragm
- (e) Inguinal canal.

PHYSIOLOGY

(4 × 5 = 20)

- (a) Rapture of deep
- (b) Breaking point
- (c) The effect of body position on lung volume
- (d) Mechanics of blood flow in 3 zones of lung
- (e) Anion gap.

BIOCHEMISTRY

(4 × 5 = 20)

- (a) Phospholipids
- (b) X1-Antitrypsin
- (c) Respiratory acidosis
- (d) Prions
- (e) Immunoglobulin E.

March-2007

[KQ 169]

Sub. Code : 2096

M.D. DEGREE EXAMINATION.

Branch XVII — Tuberculosis and Respiratory diseases

(Candidates admitted from 2004–05 onwards)

**APPLIED BASIC SCIENCES IN TUBERCULOSIS
AND RESPIRATORY DISEASES**

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) Secondary lobule in the lung.**
- (2) Thoracic vertebra**
- (3) Thoracic duct.**

(PHYSIOLOGY)

(2 × 5 = 10)

- (4) 'J' receptors.
- (5) A – a O₂ gradient (alveolar arterolar oxygen gradient).
- (6) Differential Bronchial-Spirometry.

(BIOCHEMISTRY)

(2 × 5 = 10)

- (7) Capnography.
- (8) Antioxidants.
- (9) Buffers.

(PHARMACOLOGY)

(2 × 5 = 10)

- (10) Muscarinic receptors.
- (11) Rifamycins
- (12) Surfactant therapy.

(PATHOLOGY)

(2 × 5 = 10)

- (13) Progressive Massive Fibrosis.
- (14) Pathogenesis of COPD.
- (15) Tuberculoma.

(BACTERIOLOGY)

(2 × 5 = 10)

- (16) Disinfectants.
- (17) Retrovirus
- (18) Mycobacterial - Drug Resistance.

September-2007

[KR 185]

Sub. Code : 2078

M.D. DEGREE EXAMINATION.

Branch XVII — Tuberculosis and Respiratory diseases

(Candidates admitted from 2004–05 onwards)

**APPLIED BASIC SCIENCES IN TUBERCULOSIS
AND RESPIRATORY DISEASES**

Time : Three hours

Maximum : 100 marks

Theory : Two hours and

Theory : 60 marks

twenty minutes

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. Lymphatic drainage of Lung.**
- 2. Mediastinum and Its Contents.**
- 3. Azygas Lobe.**

PHYSIOLOGY

(2 × 5 = 10)

1. Flow volume loops
2. O₂ dissociation Curve.
3. Physiological dead space.

PHARMACOLOGY

(2 × 5 = 10)

1. Cyclosonide
2. Refabutin
3. Potassium Channel Activator.

PATHOLOGY

(2 × 5 = 10)

1. BOOP
2. Non-caseating granulomata
3. Small cell cancer.

MICROBIOLOGY

(2 × 5 = 10)

1. Atypical Mycobacteria
2. Mycobacterium growth indicator tube
3. Lag period

BIOCHEMISTRY

(2 × 5 = 10)

1. Respiratory Alkalosis
2. Anion gap
3. Acetlators.

MARCH 2008

wk 7

[KS 171]

Sub. Code : 2065

M.D. DEGREE EXAMINATION.

Branch XVII — Tuberculosis and Respiratory Diseases

(Candidates admitted from 2004-2005 onwards)

APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES

Q.P. Code : 202065

Time : Three hours

Maximum : 100 marks

ANATOMY (Answer any FOUR)

(4 × 5 = 20)

- I. (1) Lymphatics of lung.
(2) Cellular development of the lung.
(3) Surfactant.
(4) Thoracic vertebra
(5) Kulchitsky cells.

PHYSIOLOGY (Answer any FOUR)

(4 × 5 = 20)

- II. (1) Flow volume loops.
(2) Physiological dead space.
(3) Polysomnography.
(4) Lung volumes.
(5) Alveolar air equation.

BIOCHEMISTRY (Answer any THREE)

(3 × 5 = 15)

- III. (1) Oxygen toxicity.
(2) Respiratory alkalosis.
(3) Buffers.
(4) DLCO.

PHARMACOLOGY (Answer any THREE)

(3 × 5 = 15)

- IV. (1) Newer quinolones.
(2) Smoking cessation therapy.
(3) Inhaled anti-cholinergics.
(4) Digoxin.

PATHOLOGY (Answer any THREE)

(3 × 5 = 15)

- V. (1) Adenoid cystic carcinoma.
(2) Pathogenesis of bronchial asthma.
(3) Pulmonary sarcoidosis.
(4) Ghon focus.

BACTERIOLOGY (Answer any THREE)

(3 × 5 = 15)

- VI. (1) Nosocomial pneumonias.
(2) Invasive candidiasis.
(3) Pulmonary nocardiosis.
(4) Cold staining.
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September 2008

[KT 171]

Sub. Code: 2065

M.D. DEGREE EXAMINATION

**BRANCH XVII – Tuberculosis and Respiratory Diseases
(Candidates admitted from 2004-05 onwards)
APPLIED BASIC SCIENCES IN TUBERCULOSIS
AND RESPIRATORY DISEASES**

Q.P. Code : 202065

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

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

1. Azygos lobe.
2. Congenital anomalies of diaphragm.
3. Bronchogenic cyst.
4. Lung Sequestration.
5. Alveolar macrophage.

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

1. Mucociliary escalator.
2. Obesity hypoventilation.
3. Oxygen dissociation curve.
4. PEFr.
5. Dynamic compliance.

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

1. Metabolic acidosis.
2. Alpha I antitrypsin.
3. Secretory IgA.
4. Leukotrienes.

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

1. Ciclesonide.
2. Long acting beta agonist.
3. Meropenem.
4. Anticholinergic bronchodilators.

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

1. Askin tumor.
2. Reid index.
3. Bronchoalveolar lavage.
4. Oncogenes.

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

1. Restriction fragment length polymorphism (RFLP) analysis.
 2. Pneumocystis jirovecii.
 3. Lowenstein Jensen medium.
 4. Photochromogens.
-

M.D. DEGREE EXAMINATION

Branch XVII – TUBERCULOSIS AND RESPIRATORY DISEASES
(Candidates admitted from 2004-05 to 2008-2009 onwards)

Paper I - APPLIED BASIC SCIENCES IN TUBERCULOSIS
AND RESPIRATORY DISEASES

Q.P. Code : 202065

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary

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

1. Respiratory muscles.
2. Development of the lungs.
3. Posterior mediastinum.
4. Alveolar macrophage.
5. Lymphatics of the lungs.

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

1. Oxygen dissociation curve.
2. Airway resistance.
3. PEF.
4. Small airway function tests.
5. Control of respiration.

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

1. CFTR.
2. Surfactant proteins.
3. Line probe assay.
4. Oxygen free radicals.

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

1. Nicotine replacement therapy.
2. Anti pseudomonal agents.
3. Rifampicin.
4. Newer antifungal agents.

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

1. Cryptogenic organizing pneumonia.
2. Coal miner's lung.
3. Desquamative interstitial pneumonia.
4. Sarcoid granuloma.

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

1. Penicillin resistant pneumococci.
2. Avian flu.
3. Allergen immunotherapy.
4. Diagnosis of fungal infections of the respiratory tract.

M.D. DEGREE EXAMINATION

Branch XVII – TUBERCULOSIS AND RESPIRATORY DISEASES

(Candidates admitted from 2004-05 to 2008-2009 onwards)

**Paper I - APPLIED BASIC SCIENCES IN TUBERCULOSIS
AND RESPIRATORY DISEASES**

Q.P. Code : 202065

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary

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

1. Acinus
2. APUD Cell
3. Tracheal Bronchus
4. Retrosternal airspace
5. Azygos lobe

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

1. Mucociliary escalator
2. Peak flow variability
3. Apnoea-Hypopnoea Index
4. Capacitance vessels
5. Small airway function

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

1. Phosphodiesterases
2. Alfa-1 Antitrypsin
3. IgE antibody
4. Tumour Suppressor gene

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

1. Aerosol therapy
2. Omalizumab
3. Adenyl Cyclase
4. Linezolid

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

1. Hamartoma
2. Dumb-bell tumours
3. Reid Index
4. UIP

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

1. Corona virus
2. Microbiology of cystic fibrosis
3. BCG
4. Rapid culture for Mycobacteria.

M.D. DEGREE EXAMINATION

BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE

**APPLIED BASIC SCIENCES IN TUBERCULOSIS
AND RESPIRATORY DISEASES**

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

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

Q.P. Code : 202065

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. ANATOMY

(4 X 5=20)

1. Development of Diaphragm.
2. Structure of Cilia.
3. Pneumocytes.
4. Innervation of lungs.

II. PHYSIOLOGY

(4 X 5=20)

1. Dynamic lung function test.
2. Aging lung.
3. Pre operative pulmonary function tests.
4. Ventilation perfusion in COPD.

III. BIOCHEMISTRY

(3 X 5=15)

1. DLCO.
2. Respiratory Alkalosis.
3. Oxygen toxicity.

IV. PHARMACOLOGY

(3 X 5=15)

1. Newer Quinolones.
2. Inhaled anticholinergics.
3. Bronchodilators.

V. PATHOLOGY

(3 X 5=15)

1. Pathogenesis of Bronchial asthma.
2. Pulmonary arterio venous fistula.
3. Re-expansion pulmonary oedema.

VI. MICROBIOLOGY

(3 X 5=15)

1. Pathogenesis of Nosocomial Pneumonia.
2. Actinomycosis of lung.
3. BCG.

MAY 2011

[KY 171]

Sub. Code: 2065

M.D. DEGREE EXAMINATION
BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE
APPLIED BASIC SCIENCES IN TUBERCULOSIS
AND RESPIRATORY DISEASES

Q.P. Code : 202065

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. Bronchopulmonary Segments.	3	9	5
2. Thoracic Duct.	3	9	5
3. Root of lung.	3	9	5
4. Type II Pneumonocyte.	3	9	5

II. PHYSIOLOGY

1. Cough reflex.	3	9	5
2. Pneumotaxic centre.	3	9	5
3. Nitric oxide.	3	9	5
4. Maximum voluntary ventilation.	3	9	5

III. BIOCHEMISTRY

1. Lactate Dehydrogenase (LDH).	3	9	5
2. Base excess.	3	9	5
3. Anion Gap.	3	9	5

IV. PHARMACOLOGY

1. Moxifloxacin.	3	9	5
2. Phosphodiesterase inhibitors.	3	9	5
3. Paraaminosalicylic acid.	3	9	5

V. PATHOLOGY

1. High altitude pulmonary oedema.	3	9	5
2. Emphysema.	3	9	5
3. Tuberculous Granuloma.	3	9	5

VI. MICROBIOLOGY

1. Anaerobic infection of lung.	3	9	5
2. Nocardia.	3	9	5
3. Gram negative infection of Lung.	3	9	5

April 2012

[LA 171]

Sub. Code: 2065

**M.D. DEGREE EXAMINATION
BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**

**APPLIED BASIC SCIENCES IN TUBERCULOSIS
AND RESPIRATORY DISEASES**

Q.P. Code : 202065

Time : 3 hours

Maximum : 100 marks

(180 Min)

Answer ALL questions in the same order.

Write notes on

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

1. Hilum of Right Lung.	3	9	5
2. Lung sequestration.	3	9	5
3. Azygos Lobe.	3	9	5
4. Thoracic Vertebra.	3	9	5

II. PHYSIOLOGY

1. Forced Vital Capacity.	3	9	5
2. Peripheral Chemoreceptors.	3	9	5
3. Muco ciliary Escalator.	3	9	5
4. Flow Volume Loop.	3	9	5

III. BIOCHEMISTRY

1. Metabolic Alkalosis.	3	9	5
2. Leurotrines.	3	9	5
3. Oxygen Toxicity.	3	9	5

IV. PHARMACOLOGY

1. Pyrazinamide.	3	9	5
2. Long Acting Beta Agonist.	3	9	5
3. Interferons.	3	9	5

V. PATHOLOGY

1. Ghon Focus.	3	9	5
2. Carcinoid Tumor.	3	9	5
3. Pulmonary Arterio Venous Fistula.	3	9	5

VI. MICROBIOLOGY

1. Lowenstein Jensen Medium.	3	9	5
2. Lung Fluke.	3	9	5
3. Ventilator Associated Pneumonia.	3	9	5

(LC 171)

APRIL 2013

Sub. Code: 2065

M.D. DEGREE EXAMINATION

BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE

APPLIED BASIC SCIENCES IN TUBERCULOSIS AND RESPIRATORY DISEASES

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 marks

Write notes on:

I. ANATOMY

(4X5=20)

1. Attachments and openings of the diaphragm
2. Pulmonary Sequestration
3. Acinus
4. Broncho-pulmonary segments

II. PHYSIOLOGY

(4X5=20)

1. Dynamic Hyperinflation
2. Cough reflex
3. J Receptors
4. Alveolar Arterial Oxygen Gradient

III. BIOCHEMISTRY

(3X5=15)

1. Potassium Channels
2. Muscarinic Receptors
3. Composition of Surfactant

IV. PHARMACOLOGY

(3X5=15)

1. Nicotine replacement therapy
2. Newer Rifampicins
3. Linezolid

V. PATHOLOGY

(3x5=15)

1. Eosinophilic Pneumonia
2. Desquamative Interstitial Pneumonia
3. Mesothelioma

VI. MICROBIOLOGY

(3x5=15)

1. Aspergillosis
2. Mucormycosis
3. Pneumocystis Pneumonia

[LD 171]

OCTOBER 2013

Sub. Code: 2065

M.D. DEGREE EXAMINATION

BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE

APPLIED BASIC SCIENCES IN TUBERCULOSIS & RESPIRATORY DISEASES

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 marks

Answer ALL questions in the same order.

Write notes on:

I. ANATOMY (4 x 5 = 20)

1. Development of Diaphragm.
2. Azygos Lobe.
3. Thoracic Duct.
4. Bronchial artery.

II. PHYSIOLOGY (4 x 5 = 20)

1. Residual Volume.
2. Mountain Sickness.
3. Pulmonary Artery Wedge Pressure.
4. Cheyne-Stoke's Breathing.

III. BIOCHEMISTRY (3 x 5 = 15)

1. Respiratory Acidosis.
2. Hyponatremia.
3. Sweat Chloride.

IV. PHARMACOLOGY (3 x 5 = 15)

1. Drug Interactions with Rifampicin.
2. Indacaterol.
3. Tobramycin.

V. PATHOLOGY (3 x 5 = 15)

1. Caseating Granuloma.
2. Kaposi Sarcoma.
3. Community Acquired Pneumonia.

VI. MICROBIOLOGY (3 x 5 = 15)

1. Nocardia.
2. Mucormycosis.
3. Genexpert.

M.D. DEGREE EXAMINATION

BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE

**PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS
AND RESPIRATORY DISEASES**

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

Write notes on:

I. ANATOMY (4 x 5 = 20)

1. Pleural Recesses.
2. Suprapleural membrane.
3. Bronchial veins.
4. Primary Lobule.

II. PHYSIOLOGY (4 x 5 = 20)

1. Spirometer.
2. Nebulisation Chamber of Nebulizer
3. Mucociliary blanket.
4. ET CO₂.

III. BIOCHEMISTRY (3 x 5 = 15)

1. Electron transport chain.
2. Leukotrienes in asthma.
3. Adenosine Deaminase.

IV. PHARMACOLOGY (3 x 5 = 15)

1. Capreomycin.
2. Rifabutin.
3. Cyclophosphamide.

V. PATHOLOGY (3 x 5 = 15)

1. Sarcoidosis.
2. Hypersensitivity pneumonitis.
3. Amyloidosis.

VI. MICROBIOLOGY (3 x 5 = 15)

1. Mycobacterium avium intracellulare.
2. Nocardiosis.
3. Entamoeba in lung.

(LI 171)

APRIL 2016

Sub. Code:2065

M.D. DEGREE EXAMINATION
BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES

Q.P.Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: (4 x 5 = 20)

1. Development of Bronchogenic cyst.
2. Broncho pulmonary segments.
3. Azygos lobe.
4. Thoracic duct.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Six minute walk test.
2. Prone ventilation.
3. Exhaled nitric oxide.
4. Venturi devices.

III. BIOCHEMISTRY: (3 x 5 = 15)

1. Anion Gap.
2. Inflammatory mediators in COPD.
3. D – Dimer.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Sites of actions of Anti TB drugs.
2. Surfactant replacement therapy.
3. N acetyl Cysteine.

V. PATHOLOGY: (3 x 5 = 15)

1. Malignant pleural lesions.
2. Neuro endocrine tumors of the lung.
3. Pancoast Tumor.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Gram negative pulmonary pathogens.
2. Influenza virus.
3. Mucormycosis.

(LJ 171)

OCTOBER 2016

Sub. Code:2065

**M.D. DEGREE EXAMINATION
BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**

**PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES**

Q.P.Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: (4 x 5 = 20)

1. Thoracic duct.
2. Thoracic Vertebra.
3. Lymphatics of Lung.
4. Surfactant.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Equal pressure point.
2. Pump handle and bucket handle movement.
3. Functional residual capacity.
4. Maximum Voluntary Ventilation.

III.BIOCHEMISTRY: (3 x 5 = 15)

1. 2, 3 - DPG.
2. Lactic Acidosis.
3. Capnography.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Moxifloxacin.
2. Bosentan.
3. Linezolid.

V. PATHOLOGY: (3 x 5 = 15)

1. Eosinophilic Pneumonia.
2. Desquamative Interstitial Pneumonia.
3. Ultrastructure of Cilia.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Ebola.
2. Aspergillus.
3. Pneumocystis Pneumonia.

(LK 171)

MAY 2017

Sub. Code:2065

M.D. DEGREE EXAMINATION
BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES

Q.P.Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: (4 x 5 = 20)

1. Lymphatic Drainage of Lung.
2. Applied anatomy of superior vena-cava.
3. Intercostal space.
4. Development of sequestration of lung.

II. PHYSIOLOGY: (4 x 5 = 20)

1. DLCO.
2. High altitude pulmonary adaptations.
3. Flow volume loop.
4. Fio 2.

III.BIOCHEMISTRY: (3 x 5 = 15)

1. Respiratory Acidosis.
2. Rapid Acetylation in INH.
3. CRP – (C – reactive protein).

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Compare merits and demerits of inhaled corticosteroids.
2. Interactions of Theophylline.
3. Anti – Pseudomonal Penicillin.

V. PATHOLOGY: (3 x 5 = 15)

1. Benign Mediastinal Lesions.
2. Solitary fibrous tumor of the pleura.
3. Pathological changes in COPD.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Extended spectrum beta lactamases.
2. Clinically significant Non – TB mycobacteria.
3. Respiratory syncytial virus.

M.D. DEGREE EXAMINATION
BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES

Q.P.Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: **(4 x 5 = 20)**

1. Development of Superior Vena Cava.
2. Lymphatic drainage of Pleura.
3. Accessory muscles of respiration.
4. Applied anatomy of Angle of Louis.

II. PHYSIOLOGY: **(4 x 5 = 20)**

1. Neurological control of Respiration.
2. Stages of sleep.
3. Mechanisms that lead to Arterial Hypoxemia.
4. Methods of measuring diffusing capacity.

III. BIOCHEMISTRY: **(3 x 5 = 15)**

1. Respiratory adjustments to Respiratory Acidosis.
2. Proteinases that may affect Lung Parenchyma.
3. Hypercalcemia in Respiratory diseases.

IV. PHARMACOLOGY: **(3 x 5 = 15)**

1. Delaminid.
2. Nicotine replacement therapies.
3. Glycopyrronium Bromide.

V. PATHOLOGY: **(3 x 5 = 15)**

1. TB granuloma.
2. Oesophageal duplication cyst.
3. Asbestos related pleural diseases.

VI. MICROBIOLOGY: **(3 x 5 = 15)**

1. Staphylococcus Aureus.
2. Pseudomonas Aeruginosa.
3. Aspergillus Fumigatus.

M.D. DEGREE EXAMINATION
BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: **(4 x 5 = 20)**

1. Geometric branching modes of bronchial Tree.
2. Anatomy of mucociliary blanket.
3. Development of Diaphragm.
4. Anatomy of Pleural reflections.

II. PHYSIOLOGY: **(4 x 5 = 20)**

1. Inherited Lung diseases.
2. Oxygen induced Hypercapnia in COPD.
3. Physiological changes in breathing due to aging.
4. Cough Reflex.

III. BIOCHEMISTRY: **(3 x 5 = 15)**

1. Role of biomarkers in Pulmonary Medicine.
2. Serum Angiotensin converting enzyme.
3. BOHR effect.

IV. PHARMACOLOGY: **(3 x 5 = 15)**

1. Bedaquiline.
2. Indacaterol.
3. Protease inhibitors.

V. PATHOLOGY: **(3 x 5 = 15)**

1. Eggshell calcification.
2. Post Traumatic Lung cyst.
3. Lymphangioleiomyomatosis.

VI. MICROBIOLOGY: **(3 x 5 = 15)**

1. Non TB mycobacteria- classification.
2. H1N1 virus.
3. Hantavirus pulmonary syndromes.

M.D. DEGREE EXAMINATION
BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: (4 x 5 = 20)

1. Lung Sequestration.
2. Parietal pleura.
3. Cross section of thoracic inlet.
4. Secondary pulmonary lobule.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Oxygen dissociation curve.
2. Physiological dead space.
3. Lung compliance.
4. Surfactant.

III. BIOCHEMISTRY: (3 x 5 = 15)

1. Anti oxidants.
2. Respiratory alkalosis.
3. Tumour markers.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Clofazimine.
2. LAMA.
3. Rifampicin indication and side effects.

V. PATHOLOGY: (3 x 5 = 15)

1. Cross section of CILIA.
2. Airway remodeling.
3. Pathological Classification of Lung Tumour.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Legionella Pnuemophila.
2. Lung Fluke.
3. Loeffler's Syndrome.

(LP 171)

OCTOBER 2019

Sub. Code: 2065

M.D. DEGREE EXAMINATION
BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: (4 x 5 = 20)

1. Tributaries of Azygos vein.
2. Hypoplastic Lung.
3. Recurrent Laryngeal nerve.
4. Innervation of pleura.

II. PHYSIOLOGY: (4 x 5 = 20)

1. JVP in lung diseases.
2. Hoover's sign.
3. Transfer factor.
4. Cheyne-stokes breathing.

III. BIOCHEMISTRY: (3 x 5 = 15)

1. Respiratory acidosis.
2. Prostaglandins.
3. LDH.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Itraconazole.
2. Oseltamivir.
3. Salbutamol.

V. PATHOLOGY: (3 x 5 = 15)

1. Granulomatosis with Polyangitis (GPA).
2. Carcinoid.
3. Tracheal Tumours.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Histoplasmosis.
2. Echinococcus.
3. Anaerobic infection of lung.

M.D. DEGREE EXAMINATION
BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: (4 x 5 = 20)

1. Lymphatic drainage of the lung
2. Oesophageal duplication cyst
3. Applied Anatomy of angle of Louis
4. Bronchial Isomerism

II. PHYSIOLOGY: (4 x 5 = 20)

1. Zones of perfusion of lung
2. Types of hypoxia
3. DLCO
4. Lung function changes in ILD

III. BIOCHEMISTRY: (3 x 5 = 15)

1. Oxygen Toxicity
2. Haldane effect
3. Calculation of oxygen delivery (DO_2)

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Varenicline Hydrochloride
2. Nintedanib
3. Cycloserine

V. PATHOLOGY: (3 x 5 = 15)

1. Langerhans cell Histiocytosis
2. Bronchogenic cysts
3. Bronchiolitis obliterans organizing pneumonia (BOOP)

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Pseudomonas Aeruginosa
2. Nocardia
3. Pneumocystis Jirovecii

[MD 0721]

JULY 2021

Sub. Code: 2065

(MAY 2021 SESSION)

M.D. DEGREE EXAMINATION

BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE

**PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES**

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY:

(4 x 5 = 20)

1. Acinus.
2. Thoracic duct.
3. Cilia.
4. Unilateral pulmonary artery hypoplasia.

II. PHYSIOLOGY:

(4 x 5 = 20)

1. FEV1.
2. Kussmaul breathing.
3. Dahl sign.
4. Spirometry.

III. BIOCHEMISTRY:

(3 x 5 = 15)

1. Alpha-1-antitrypsin.
2. Capnography.
3. Leukotrienes.

IV. PHARMACOLOGY:

(3 x 5 = 15)

1. Phospho-diesterase inhibitors.
2. Indacaterol-glycopyrronium.
3. Delamanid.

V. PATHOLOGY:

(3 x 5 = 15)

1. ARDS.
2. Pathophysiology of bronchial asthma.
3. Aspergilloma.

VI. MICROBIOLOGY:

(3 x 5 = 15)

1. nCOVID-19.
2. Ultra Xpert MTB/RIF.
3. Atypical mycobacteria.

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

[MD 1121]

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

Sub. Code: 2065

BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE

**PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES**

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: (4 x 5 = 20)

1. Diaphragm – applied Anatomy.
2. Stages of Lung Development.
3. Pulmonary Agenesis.
4. Ribs Classification.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Haldane & Bohr effect.
2. 6 minutes walk test.
3. Co₂ dissociation curve.
4. Body plethysmography.

III. BIOCHEMISTRY: (3 x 5 = 15)

1. Alpha – 1 Antitrypsin.
2. Anion Gap.
3. Inflammatory markers in COVID-19.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Posaconazole.
2. Tocilizumab.
3. Classification of Asthma Drugs.

V. PATHOLOGY: (3 x 5 = 15)

1. Types of Emphysema.
2. Airway remodeling.
3. Pathological changes in COPD.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Microbiology of PAP.
2. Atypical Mycobacteria.
3. Legionella Pneumophila.

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

[MD 0522]

MAY 2022

Sub. Code: 2065

M.D. DEGREE EXAMINATION

BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE

**PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES**

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY:

(4 x 5 = 20)

1. Respiratory Bronchiole.
2. Azygos Lobe.
3. Goblet Cell.
4. Alveolar Macrophage.

II. PHYSIOLOGY:

(4 x 5 = 20)

1. Gas exchange apparatus.
2. Cough Receptor.
3. Type 2 cells.
4. Lung defence Mechanism.

III. BIOCHEMISTRY:

(3 x 5 = 15)

1. CRP.
2. IgE.
3. Anti oxidants.

IV. PHARMACOLOGY:

(3 x 5 = 15)

1. LAMA.
2. Lignocaine in Bronchoscopy.
3. Ipratropium.

V. PATHOLOGY:

(3 x 5 = 15)

1. Primary Complex.
2. Soft Tubercle.
3. PMF.

VI. MICROBIOLOGY:

(3 x 5 = 15)

1. Klebsiella Pneumonia.
2. Mycobacterium Avium Complex.
3. Bio Terrorism.

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

[MD 1022]

OCTOBER 2022

Sub. Code: 2065

**M.D. DEGREE EXAMINATION
BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE
PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES**

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: (4 x 5 = 20)

1. Airways Generations.
2. Anatomy of SVC.
3. Mediastinal Lymph node Stations.
4. Intercostal muscles.

II. PHYSIOLOGY: (4 x 5 = 20)

1. High Altitude Pulmonary Adaptations.
2. DLCO.
3. Physiological functions of the surfactant.
4. Oxygen dissociation curve.

III. BIOCHEMISTRY: (3 x 5 = 15)

1. Anion Gap
2. Anti oxidants.
3. LDH.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Pretomanid.
2. Gemcitabine.
3. Pembrolizumab.

V. PATHOLOGY: (3 x 5 = 15)

1. Masson body.
2. Pathology of COVID19 Pneumonia.
3. Oesophageal duplication cyst.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Fall and Rise phenomena.
2. MGIT – Liquid culture system for AFB.
3. LATENT TB – diagnostic tools.

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

[MD 0723]

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

Sub. Code: 2065

M.D. DEGREE EXAMINATION

BRANCH XVII – RESPIRATORY MEDICINE

**PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES**

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: (4 x 5 = 20)

1. Alveolar Epithelium.
2. Blood supply of Lungs.
3. Pleural Recesses.
4. Development and Congenital Anomalies of Trachea.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Peak Expiratory Flow Rate (PEFR).
2. Lecithin – Sphingomyelin Ratio.
3. Oxygen Dissociation Curve.
4. Anion Gap.

III. BIOCHEMISTRY: (3 x 5 = 15)

1. Alpha-1 Anti Trypsin.
2. Procalcitonin.
3. Adenosine Deaminase.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Anti – IgE Antibody.
2. Gene Therapy.
3. Moxifloxacin.

V. PATHOLOGY: (3 x 5 = 15)

1. Sarcoid Granuloma.
2. Reid index.
3. Askin tumor.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Next Generation Sequencing.
2. Respiratory Syncytial Virus.
3. Photochromogens.

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

[MD 1223]

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

Sub. Code: 2065

M.D. DEGREE EXAMINATION

BRANCH XVII – RESPIRATORY MEDICINE

**PAPER I – APPLIED BASIC SCIENCES IN TUBERCULOSIS AND
RESPIRATORY DISEASES**

Q.P. Code: 202065

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY: (4 x 5 = 20)

1. Pleura.
2. Mucociliary escalator.
3. Trachea.
4. Pulmonary ligaments.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Haemoglobin dissociation curve.
2. Methemoglobinemia.
3. Maximum breathing capacity.
4. Alveolar gas equation.

III. BIOCHEMISTRY: (3 x 5 = 15)

1. Inflammatory markers.
2. Interferon Gamma.
3. Cytokine storm.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. Indacaterol.
2. Monoclonal antibodies in Asthma.
3. Amphotericin.

V. PATHOLOGY: (3 x 5 = 15)

1. Granuloma.
2. Pathology of Lung injury in COVID illness.
3. Classification of Lung malignancy.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Mycobacterium avium intracellulare.
2. Mycormycosis.
3. Structure of Covid virus.
