

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch XVII — Tuberculosis and Respiratory Diseases

Part II

Paper III — RECENT ADVANCES IN  
TUBERCULOSIS AND CHEST DISEASES

Time : Three hours

Maximum : 100 marks

1. Enumerate Pulmonary infections in an IMMUNOCOMPROMISED HOST. Discuss the diagnosis and management of Pneumocystis carini Pneumonia. (25)
  2. Discuss various complications of mechanical ventilation. How can they be prevented? (25)
  3. Write briefly on :
    - (a) Fat Embolism
    - (b) Anatomy of respiratory Bronchioles
    - (c) Bio-availability test and its clinical use
    - (d) Chloro-Fluro carbons
    - (e) Nocturnal Asthma. (5 × 10 = 50)
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**M.D. DEGREE EXAMINATION.**

(Revised Regulations)

Branch XVII — Tuberculosis and Respiratory Diseases

Part II

**Paper III — RECENT ADVANCES IN  
TUBERCULOSIS AND CHEST DISEASES**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Define Nosocomial Pneumonia. Write about the risk factors for the development of Nosocomial Pneumonia, the common pathogens causing Nosocomial Pneumonia, the diagnostic modalities and treatment of ventilator associated pneumonia. (5 + 5 + 5 + 5 + 5 = 25)
2. Write about the current concepts of immunology of Tuberculosis. (25)
3. Write briefly on : (5 × 10 = 50)
  - (a) Lung Transplant.
  - (b) Role of Body Plethysmography.
  - (c) Hantavirus pulmonary syndrome.
  - (d) Weaning of patients from Ventilators.
  - (e) Investigations for central nervous system tuberculosis.

[KI 190]

April-2003

Sub. Code : 2097

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Tuberculosis and Respiratory Diseases

Part II

Paper III — RECENT ADVANCES IN  
TUBERCULOSIS AND CHEST DISEASES

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss Lung host defences. (25)
  2. Discuss mechanism of Fluid formation in Pleural cavity. Discuss causes of Recurrent Pleural Effusion. (25)
  3. Write briefly on : (5 × 10 = 50)
    - (a) Video Endo Bronchoscope
    - (b) Body Box
    - (c) Rifa Butol
    - (d) Capreomycin
    - (e) Oxygen concentrator.
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[KJ 190]

Sub. Code : 2097

**M.D. DEGREE EXAMINATION.**

(Revised Regulations)

**Tuberculosis and Respiratory Diseases**

**Part II**

**Paper III — RECENT ADVANCES IN  
TUBERCULOSIS AND CHEST DISEASES**

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 of M.C.Q. Booklet.

**Answer ALL questions.**

Draw suitable diagrams wherever necessary.

Write an essay on :

(2 × 15 = 30)

1. Role of Alveolar macrophages in cell mediated immunity in Tuberculosis.
2. Role of the Imaging sciences in the management of respiratory problems.

3. Write short notes on :

(10 × 5 = 50)

- (a) IS 6110.
- (b) Congenital tuberculosis.
- (c) Bcg. Gene.
- (d) Septi chek AFB.
- (e) Anti Neutrophil Cytoplasmic Antibody.
- (f) Double Lumen Endotracheal Tube.
- (g) Non Invasive Ventilation.
- (h) Surgical management of Bullous Lung Diseases.
- (i) Sars Virus Pneumonia.
- (j) Gallium 67 Scintigraphy.

[KL 190]

Sub. Code : 2097

**M.D. DEGREE EXAMINATION.**

(Revised Regulations)

**Tuberculosis and Respiratory Diseases**

**Part II**

**Paper III — RECENT ADVANCES IN  
TUBERCULOSIS AND CHEST DISEASES**

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. Write an essay on : (2 × 15 = 30)

(1) Applications of cross sectional imaging techniques in intra thoracic diseases.

(2) Coronavirus diseases.

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

(a) Paragonimiasis.

(b) Anthrax.

(c) Management of Hospital Acquired pneumonia.

(d) Post Operative Care in COPD.

(e) Diagnostic Bronchoscopy.

(f) Lung transplantation.

(g) DOTS.

(h) Counseling for HIV and Tuberculosis.

(i) Polysomnography.

(j) Gene therapy.

[KM 190]

**Sub. Code : 2097**

## II. Short Notes :

(10 × 5 = 50)

M.D. DEGREE EXAMINATION

(Revised Regulations)

## Tuberculosis and Respiratory Diseases

## Part II

### Paper III — RECENT ADVANCES IN TUBERCULOSIS AND CHEST DISEASES

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) Describe minimally invasive thoracic procedures.

(2) Describe diagnostic evaluation and management of acute pulmonary embolism.

## II. Short Notes :

(10 × 5 = 50)

(a) Partial liquid ventilation

(b) Outdoor air pollution

(c) Ventilator associated Pneumonia

#### (d) Walking tests

(e) Re expansion pulmonary edema

(f) The genetics of asthma

(g) Synchronized intermittent mandatory ventilation

### (h) Domiciliary oxygen therapy

### (i) Exercise induced Asthma

(j) Respiratory Acid base disorders.

[KP 190]

Sub. Code : 2097

-II Short notes :

(6 × 5 = 30)

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch XVII — Tuberculosis and Respiratory Diseases

Part II

Paper III — RECENT ADVANCES IN  
TUBERCULOSIS AND CHEST DISEASES

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.

1. Essay :

- (1) Describe pathogenesis clinical features and management of acute severe asthma. (20)
- (2) Immuno pathology of Tuberculosis. (15)
- (3) Discuss the role of Bronchoscopy in the management of chest disease. (15)

- (a) High frequency ventilation.
- (b) Oxygen Toxicity.
- (c) Complications of Thoracentesis.
- (d) Pulmonary Rehabilitation.
- (e) Severe acute Respiratory syndrome.
- (f) Hyaline membrane disease.

[KQ 168]

Sub. Code : 2099

II. Write short notes on :

(6 × 5 = 30)

**M.D. DEGREE EXAMINATION.**

Branch XVII — Tuberculosis and Respiratory Diseases

**RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

Common to — Part II — Paper III — (Old/New/Revised  
Regulations) (Candidates admitted from 1988-89  
onwards)

and

Paper — IV (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 questions :**

(1) Discuss the indications, contraindications  
and complications of fiberoptic bronchoscopy. (20)

(2) Discuss the advantages and disadvantages of  
Non invasive ventilation. (15)

(3) Diagnosis and management of Pneumocystis  
jervicii pneumonia. (15)

- (a) Smoking cessation.
  - (b) Liquid ventilation.
  - (c) Tracheoesophageal fistula.
  - (d) Pathophysiology of lung injury
  - (e) Melicoidosis.
  - (f) HIV-TB Co-infection.
-



[KR 184]

Sub. Code : 2077

**M.D. DEGREE EXAMINATION.**

**Branch XVII — Tuberculosis and Respiratory Diseases**

**RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

Common to — Part II — Paper III — (Old/New/Revised  
Regulations) (Candidates admitted from 1988–89  
onwards)

and

Paper — IV (for candidates admitted from 2004–2005  
onwards)

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.**

**I. Essay questions :**

(1) Define hospital acquired pneumonia. Discuss  
the predisposing factors, management and preventive  
measures in HAP. (20)

(2) Immuno Pathology of Tuberculosis. (15)

(3) Discuss the newer methods in the diagnosis  
of mycobacterial infection. (15)

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

(a) Good clinical practice (GCP)

(b) Omalizumab

(c) Clinical pulmonary infection score

(d) Steroid insensitive asthma

(e) Apnoea-Hypopnoea index

(f) EBUS.

**MARCH 2008****[KS 170]****Sub. Code : 2064**

M.D. DEGREE EXAMINATION.

Branch XVII — Tuberculosis and Respiratory Diseases

RECENT ADVANCES IN TUBERCULOSIS AND CHEST  
DISEASES(Common to — Part II – Paper III – (Old/New/Revised Regulations)  
(Candidates admitted from 2003–04)

and

Paper IV (for candidates admitted from 2004–2005 onwards)

**Q.P. Code : 202064**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

- I. Essay questions: (2 × 20 = 40)
1. Discuss clinical settings associated with ARDS and its management.
  2. Discuss the drug induced lung diseases by pathophysiologic and clinical syndromes in detail.
- II. Write short notes on: (10 × 6 = 60)
1. Lung transplant.
  2. XDR. TB.
  3. High altitude sickness.
  4. Acute radiation syndrome.
  5. Bioterrorism.
  6. Hypersensitive pneumonitis.
  7. Positron emission tomography.
  8. Avian influenza.
  9. Oxygen mask's.
  10. Methotrexate.
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September 2008

[KT 170]

Sub. Code: 2064

**M.D. DEGREE EXAMINATION**

**Branch XVII –Tuberculosis and Respiratory Diseases**

**RECENT ADVANCES IN TUBERCULOSIS AND CHEST  
DISEASES**

Common to

**Part II – Paper III - (Old /New/Revised Regulations)  
(Candidates admitted upto 2003-04) and**

**Paper IV – (For candidates admitted from 2004-2005 onwards)**

*Q.P. Code : 202064*

**Time : Three hours**

**Maximum : 100 marks**

**Draw suitable diagram wherever necessary.**

**Answer ALL questions.**

**I. Essay questions :**

**(2 X 20 = 40)**

1. Classify the mediastinal tumors. Discuss the various investigation with emphasis on mediastinoscopy.
2. Discuss the various modes of weaning from ventilator.

**II. Write short notes on :**

**(10 X 6 = 60)**

1. Endobronchial ultrasound.
  2. Exercise induced asthma.
  3. Dynamic stents.
  4. Pulmonary rehabilitation.
  5. BOOP.
  6. Lipoid pneumonitis.
  7. Humidifier fever.
  8. Melioidosis.
  9. Hoover's sign.
  10. Chemical Pleurodesis.
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**March 2009**

**[KU 170]**

**Sub. Code: 2064**

**M.D. DEGREE EXAMINATION**

**Branch XVII – TUBERCULOSIS AND RESPIRATORY DISEASES**

**Part II – Paper III - (Candidates admitted upto 2003-04) and**

**Paper IV – (For candidates admitted from 2004-2005 to 2007-2008)**

**RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

***Q.P. Code : 202064***

**Time : Three hours**

**Maximum : 100 marks**

**Draw suitable diagram wherever necessary**

**Answer ALL questions**

**I. Essay questions :**

**(2 x 20 = 40)**

1. Discuss the clinical features and management of obstructive sleep apnoea.
2. Describe the clinical features, diagnosis and management of pulmonary thromboembolism.

**II. Write short notes on :**

**(10 x 6 = 60)**

1. Smoking cessation.
2. Vanishing lung syndrome.
3. Scar carcinoma.
4. Berylliosis.
5. Lung transplantation.
6. Fluticasone.
7. Autofluorescent bronchoscopy.
8. Bronchial provocation test.
9. Eosinophilic bronchitis.
10. Heimlich valve.

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September 2009

[KV 170]

Sub. Code: 2064

**M.D. DEGREE EXAMINATION**

**Branch XVII – TUBERCULOSIS AND RESPIRATORY DISEASES**

**Part II – Paper III - (Candidates admitted upto 2003-04) and**

**Paper IV – (For candidates admitted from 2004-2005 to 2007-2008)**

**RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

*Q.P. Code : 202064*

**Time : Three hours**

**Maximum : 100 marks**

**Draw suitable diagram wherever necessary**

**Answer ALL questions**

**I. Essay questions :**

**(2 x 20 = 40)**

1. What is ARDS? Discuss the ventilatory strategies in ARDS.
2. Describe XDR TB. How will you approach a case of Category II failure? How will you ensure community participation in TB control?

**II. Write short notes on :**

**(10 x 6 = 60)**

1. Syndrome Z.
2. Targetted therapy in Lung cancer.
3. Endoscopic LVRS.
4. Diagnostic methods in LTBI.
5. Auto CPAP.
6. MODS.
7. Laser in pulmonary medicine.
8. Medical thoracoscopy.
9. Varenicline.
10. Role of steroids in COPD.

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September 2010

[KX 170]

Sub. Code: 2064

**M.D. DEGREE EXAMINATION**

**Branch XVII –TUBERCULOSIS AND RESPIRATORY DISEASES**

**RECENT ADVANCES IN TUBERCULOSIS AND CHEST  
DISEASES**

**Paper IV – (for candidates admitted from 2004-2005 to 2007-2008) and  
Part II – Paper III - (for candidates admitted from 2008-09 onwards)**

*Q.P. Code : 202064*

**Time : Three hours**

**Maximum : 100 marks**

**Draw suitable diagram wherever necessary.**

**Answer ALL questions.**

**I. Essay questions :**

**(2 X 20 = 40)**

1. Discuss sleep related breathing disorders. Describe the clinical features, diagnosis and treatment of Obstructive sleep Apnoea.
2. Define ARDS. Discuss the etiopathogenesis, clinical features and the ventilatory strategies in ARDS.

**II. Write short notes on :**

**(10 X 6 = 60)**

1. Lung transplantation.
2. Prevention of Pneumonia.
3. Capnography.
4. Lung expansion therapy.
5. Oxygen delivery system.
6. Laser in pulmonary medicine.
7. Passive smoking.
8. Bronchial artery embolization.
9. Early detection of lung cancer.
10. Surfactant replacement therapy.

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**MAY 2011**

**[KY 170]**

**Sub. Code: 2064**

**M.D. DEGREE EXAMINATION**

**BRANCH XVII – TUBERCULOSIS AND RESPIRATORY DISEASES**

**RECENT ADVANCES IN TUBERCULOSIS AND CHEST DISEASES**

***Q.P. Code : 202064***

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

**Maximum : 100 marks**

**Answer ALL questions in the same order.**

**I. Elaborate on :**

<b>Pages (Max.)</b>	<b>Time (Max.)</b>	<b>Marks (Max.)</b>
-------------------------	------------------------	-------------------------

- |  |    |    |    |
|--|----|----|----|
| 1. Classify Pulmonary hypertension and discuss the management of Primary pulmonary hypertension.                         | 11 | 35 | 15 |
| 2. Discuss the current applications of Non invasive positive pressure ventilation. Add a note on permissive hypercapnia. | 11 | 35 | 15 |

**II. Write notes on :**

- |   |   |    |   |
|---|---|----|---|
| 1. Pneumococcal vaccine.                  | 4 | 10 | 7 |
| 2. Pleuroscopy.                           | 4 | 10 | 7 |
| 3. Line probe assay.                      | 4 | 10 | 7 |
| 4. Gene therapy.                          | 4 | 10 | 7 |
| 5. Smoking cessation.                     | 4 | 10 | 7 |
| 6. Aerosol delivery systems.              | 4 | 10 | 7 |
| 7. Newer anti Tuberculosis drugs.         | 4 | 10 | 7 |
| 8. Long acting bronchodilators.           | 4 | 10 | 7 |
| 9. Positron emission tomography.          | 4 | 10 | 7 |
| 10. Indications for Lung transplantation. | 4 | 10 | 7 |

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**APRIL 2012**

**[LA 170]**

**Sub. Code: 2064**

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

**RECENT ADVANCES IN TUBERCULOSIS AND CHEST DISEASES**

***Q.P. Code : 202064***

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

**Maximum : 100 marks**

**Answer ALL questions in the same order.**

**I. Elaborate on :**

	<b>Pages (Max.)</b>	<b>Time (Max.)</b>	<b>Marks (Max.)</b>
1. Describe the morphology of influenza 'A' virus, Clinical features and management of H1N1 Influenza.	16	35	15
2. Mention the different types of Respiratory Failure. Enumerate their causes. How will you manage Type II Respiratory failure.	16	35	15

**II. Write notes on :**

1. Role of Pirfenidone in Idiopathic Pulmonary Fibrosis.	4	10	7
2. Polymerase Chain Reaction in the diagnosis of tuberculosis.	4	10	7
3. Leukotrine modifiers and its role in Asthma.	4	10	7
4. Indications and Procedure of Video Assisted Thoracoscopic Surgery.	4	10	7
5. Oncogenesis in Lung cancer	4	10	7
6. Role of surfactant replacement therapy in Respiratory Distress Syndrome.	4	10	7
7. Define X.D.R. T.B and its management.	4	10	7
8. P.E.T.(Positron Emission Tomography) scan in the diagnosis of lung tumor.	4	10	7
9. Role of Immunotherapy in the management of tuberculosis.	4	10	7
10. Indication for Long term oxygen therapy in C.O.P.D and non-C.O.P.D Patients.	4	10	7

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(LC 170)

APRIL 2013

Sub. Code: 2064

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

**RECENT ADVANCES IN TUBERCULOSIS AND CHEST DISEASES**

***Q.P. Code: 202064***

**Time: Three Hours**

**Maximum: 100 marks**

**I. Elaborate on:**

**(2X15=30)**

1. Discuss aetiology, clinical features, diagnosis and management of Pulmonary Arterial Hypertension.
2. Describe clinical feature of obstructive Sleep apnea, its diagnosis and management.

**II. Write notes on:**

**(10X7=70)**

1. Polymerase Chain Reaction
2. Line Probe Assay
3. Usefulness of Human Leucocyte antigen in respiratory disease
4. Laser therapy in Respiratory Disease
5. Early diagnosis of Lung Cancer
6. Indoor Air Pollution
7. Intrinsic PEEP
8. N 95 Respirator
9. Nebulized anti-microbials
10. Anti-oxidants

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**(LE 170)**

**APRIL 2014**

**Sub. Code:2064**

**M.D. DEGREE EXAMINATION**

**BRANCH XVII - TUBERCULOSIS AND RESPIRATORY MEDICINE**

**RECENT ADVANCES IN TUBERCULOSIS AND CHEST DISEASES**

***Q.P.Code: 202064***

**Time: Three Hours**

**Maximum: 100 marks**

**I. Elaborate on:**

**(2X15=30)**

1. Role of Broncho Alveolar Lauage (BAL) in diagnosis of Parenchymal Lung Disease.
2. Climatic Change and Lung Diseases.

**II. Write notes on:**

**(10X7=70)**

1. 'P' Value in Statistical Analysis.
2. Inhalational injury.
3. High Frequency Ventilator.
4. Pirfenidone.
5. Gene Therapy.
6. Virtual Bronchoscopy.
7. Magnetic Resonance Imaging (MRI) in Respiratory Disease.
8. Asthma in Pregnancy.
9. Empirical Antibiotics in the presence of Health Care Associated Pneumonia.
10. Long term Oxygen Therapy.

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[LG 170]

APRIL 2015

Sub. Code: 2064

**M.D. DEGREE EXAMINATION**  
**BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**  
**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS**  
**AND CHEST DISEASES**

*Q.P. Code: 202064*

**Time: Three Hours**

**Maximum: 100 marks**

**Answer ALL questions**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Discuss the classification, clinical features, diagnosis & management of ARDS / ALI.
2. Discuss the complications of mechanical ventilation and their preventive measures.

**II. Write notes on:**

**(10 x 7 = 70)**

1. TB vaccines.
2. Genexpert.
3. Pulmonary CT angiogram.
4. CPAP.
5. Heliox.
6. Amniotic fluid Embolism.
7. Inversion of Diaphragm
8. Nicotine replacement therapy.
9. Navigational bronchoscopy.
10. Pleuroscopy.

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

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

*Q.P.Code: 202064*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:** **(2 x 15 = 30)**

1. Discuss recent advancements in Interventional Bronchoscopy Elaborate on their clinical utilities.
2. Elaborate usefulness of Immunohisto chemistry in the diagnosis and management of Lung Malignancies.

**II. Write notes on:** **(10 x 7 = 70)**

1. Radio Frequency Ablation in lung malignancies.
2. Lung protective ventilatory strategies.
3. Newer BCG Vaccine.
4. Options for lung volume reduction.
5. MODS – Microscopic Observation of Drug Susceptibility assays.
6. The lung injury score.
7. Pneumonia severity index.
8. Surfactant replacement therapy.
9. Prone ventilation.
10. D-Dimer.

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**(LJ 170)**

**OCTOBER 2016**

**Sub. Code:2064**

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

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

***Q.P.Code: 202064***

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:** **(2 x 15 = 30)**

1. Discuss in detail about Lung transplant.
2. Discuss the Newer Anti – TB drugs.

**II. Write notes on:** **(10 x 7 = 70)**

1. Plethysmography.
2. Mycobacteria growth indicator tube.
3. V/Q Scan.
4. Polysomnography.
5. Domiciliary oxygen therapy.
6. Fat Embolism.
7. Pressure support Ventilation.
8. Omalizumab.
9. Endo Bronchial ultrasound (EBUS).
10. Pleurodesis.

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(LK 170)

MAY 2017

Sub. Code:2064

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

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

*Q.P.Code: 202064*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:** **(2 x 15 = 30)**

1. Describe the clinical feature, diagnosis and management of obstruction sleep Apnea.
2. Discuss recent molecular diagnostic advancements in the diagnosis of Mycobacterium Tuberculosis how its being utilized in the RNTCP?

**II. Write notes on:** **(10 x 7 = 70)**

1. High frequency oscillatory ventilation.
2. Role of EBUS (Endo Bronchial Ultra Sonography).
3. Advantages of pressure support ventilation.
4. Laboratory diagnosis of Leptospirosis.
5. Bronchial Thermo plasty.
6. CEFTAROLINE.
7. Bevacizumab.
8. Tyrosine kinase inhibitors in lung malignancy.
9. Diaphragmatic Palsy.
10. Bronchial artery embolization.

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**M.D. DEGREE EXAMINATION**

**BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

*Q.P.Code: 202064*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:** **(2 x 15 = 30)**

1. Discuss Mechanisms of Lung Injury due to Drug related Pulmonary Toxicities. Mention various Pharmaceutical agents which cause Drug related Pulmonary Toxicity?
2. Discuss in detail about various advancements in the understanding of pleural diseases. Outline the role of Medical thoracoscopy.

**II. Write notes on:** **(10 x 7 = 70)**

1. Asthma- COPD overlap (ACO).
2. End Tidal Co<sub>2</sub> measurement.
3. Omalizumab.
4. Drugs used for smoking Cessation Therapy.
5. Single Photon Emission computed Tomography ventilation / perfusion scan.
6. Portal pulmonary hypertension.
7. Laboratory diagnosis of Idiopathic chronic eosinophilic pneumonia.
8. Blast Lung injury mechanisms and management.
9. Evaluation of exudative pleural effusion.
10. Merits and demerits of agents used for pleurodesis.

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**M.D. DEGREE EXAMINATION**

**BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

*Q.P. Code: 202064*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Discuss in detail about recent developments in using various inhalational medications for the management of chronic obstructive pulmonary diseases (COPD). What are the recent changes in the Gold guidelines?
2. Discuss clinical features, diagnosis and management of Pulmonary Hypertension due to various cause. Mention updated DANA point WHO classification of Pulmonary Hypertension.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Mediastinal Lymph nodal Stations.
2. Mechanism of metastasis to the Lungs.
3. Admission criteria in Community acquired pneumonia.
4. Diagnostic criteria for Idiopathic Acute Eosinophilic pneumonia.
5. Reactive Air way dysfunction syndrome (RADS)-diagnostic criteria.
6. Sirolimus.
7. Recent changes in ART Guide lines.
8. Langerhans Cell Histiocytosis (LCH).
9. Hepato pulmonary syndrome.
10. Mycobacteria Growth Indicator Tube (MGIT).

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**M.D. DEGREE EXAMINATION**

**BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

*Q.P. Code: 202064*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Modes of ventilation and its complication.
2. Discuss recent advances in the management of bronchial asthma.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Laser therapy.
2. Gene therapy.
3. LPA.
4. Indications for VATS (Video Assisted Thoracic Surgery).
5. E- cigarette.
6. Delamanid.
7. Blue protocol.
8. Mini BAL.
9. ECMO.
10. PET SCAN.

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**M.D. DEGREE EXAMINATION**

**BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

*Q.P. Code: 202064*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:** **(2 x 15 = 30)**

1. Discuss the classification, clinical features, diagnosis and management of Idiopathic interstitial pneumonia.
2. Discuss the clinical features, diagnosis and management of pulmonary embolism.

**II. Write notes on:** **(10 x 7 = 70)**

1. Management of sepsis.
2. Lung volume reduction surgery.
3. BIPAP therapy.
4. Sick building syndrome.
5. N. Acetyl Cysteine.
6. Interferron gamma release assay.
7. SIMV.
8. Voriconazole.
9. Transbronchial needle aspiration.
10. Kat-G Mutation.

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[LQ 170]

AUGUST 2020  
(MAY 2020 SESSION)

Sub. Code: 2064

**M.D. DEGREE EXAMINATION**

**BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

*Q.P. Code: 202064*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Elaborate on occupational lung diseases and strategies to prevent silicosis
2. Discuss tools available for the diagnosis of latent TB. Out line treatment options for latent TB management

**II. Write notes on:**

**(10 x 7 = 70)**

1. Porto Pulmonary Hypertension
2. Pathogenesis of Pulmonary Hypertension in sickle cell disease
3. Amniotic fluid embolism
4. Methods of ventilation used in Neuromuscular diseases
5. High frequency jet ventilation
6. AUTO PEEP
7. Indication for home O<sub>2</sub> in advanced COPD
8. Living donor Bilobar Transplantation
9. Pulmonary alveolar microlithiasis
10. Malignant Pleural Mesothelioma

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[MD 0721]

JULY 2021  
(MAY 2021 SESSION)

Sub. Code: 2064

**M.D. DEGREE EXAMINATION**

**BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

*Q.P. Code: 202064*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Lung transplant and its infectious and non-infectious complications.
2. Obstructive sleep apnoea- definition, clinical features, diagnosis and management.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Pneumococcal vaccine.
2. Radiofrequency ablation therapy.
3. Smoking cessation.
4. Inh A mutation.
5. Xpert MTB/RIF Ultra.
6. Role of MESNA in pulmonology.
7. Bedaquiline.
8. Posaconazole.
9. EBUS.
10. CPAP.

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

**[MD 1121]**

**NOVEMBER 2021  
(OCTOBER 2021 SESSION)**

**Sub. Code: 2064**

**M.D. DEGREE EXAMINATION**

**BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

***Q.P. Code: 202064***

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. a) Discuss the Pleural Mechanics, Pathophysiology and Management of Pleural air leak.  
b) Role of Laser and Stents in Pulmonary Medicine.
2. HLA uses in Respiratory Diseases and Lung Transplant.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Cardio Pulmonary Exercise Test.
2. HFNO.
3. Endobronchial Photo Dynamic Therapy.
4. Airbone Infection Control.
5. Post Covid Lung Fibrosis.
6. Apixaban.
7. Plasmapheresis.
8. Permissive Hypercapnoea.
9. Air travel Guidelines for Respiratory Disease Patients.
10. Culture Negative TB.

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

**[MD 0522]**

**MAY 2022**

**Sub. Code: 2064**

**M.D. DEGREE EXAMINATION**

**BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

***Q.P. Code: 202064***

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Recent Advances in Interventional Pulmonology. Discuss in brief about Cryo Biopsies.
2. Enumerate various Occupational Lung disease. Discuss in brief about pre employment Pulmonary evaluation and safety measures to prevent occupational lung disease.

**II. Write notes on:**

**(10 x 7 = 70)**

1. BLUE Protocol.
2. Current GINA guidelines for managing Asthma.
3. Pathological Patterns of Acute Lung Injury.
4. Post COVID Pulmonary Rehabilitation.
5. Non infectious complications in solid organ transplantation.
6. Diagnosis of Pneumocystis Jirovecii.
7. Latent TB Management in HIV.
8. Respiratory manifestations of Inflammatory Bowel disease (IBD).
9. Hepato pulmonary Syndrome.
10. Pathogenesis of Acute chest Syndrome in sickle cell disease.

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

**[MD 1022]**

**OCTOBER 2022**

**Sub. Code: 2064**

**M.D. DEGREE EXAMINATION**

**BRANCH XVII – TUBERCULOSIS AND RESPIRATORY MEDICINE**

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

***Q.P. Code: 202064***

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Pulmonary Complications in HIV disease. Outline interactions of Anti Retro Viral drugs with other medications.
2. Discuss pathogenesis of Cystic Fibrosis. What are the treatment options? Mention possible Genetic interventions.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Components of Respiratory Impairment Evaluation.
2. Bioterrorism pathogens that can cause Pneumonia Associated Respiratory failure.
3. Epigenetic mechanisms.
4. Culture independent Microbiome studies.
5. Navigational Bronchoscopy.
6. PPOCUS – Portable Point of Care Ultra Sound.
7. Cardio Pulmonary Exercise testing.
8. Important Post operative Pulmonary complications.
9. Assessment of Severity of Bronchiectasis.
10. Preventive strategies to avoid ventilator Associated pneumonia.

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

**[MD 0723]**

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

**Sub. Code: 2064**

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

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

***Q.P. Code: 202064***

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:** **(2 x 15 = 30)**

1. Lung Transplantation – Types, Indication, Evaluation of Recipient, Management and Complications.
2. Ventilator Associated Pneumonia. Discuss on the modern trends in the prevention of Ventilator Acquired Pneumonia.

**II. Write notes on:** **(10 x 7 = 70)**

1. Medical Thoracoscopy.
2. FeNO (Fractional Exhaled Nitric Oxide).
3. Smoking cessation.
4. Autofluorescence Bronchoscopy.
5. SARI (Severe Acute Respiratory Infection).
6. GCP (Good Clinical Practice).
7. Capnography.
8. Vaccines in Pulmonary Medicine.
9. Permissive Hypercapnea.
10. Tracheobronchial Stents.

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

**[MD 1223]**

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

**Sub. Code: 2064**

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

**PAPER IV – RECENT ADVANCES IN TUBERCULOSIS AND  
CHEST DISEASES**

***Q.P. Code: 202064***

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Classify Pulmonary Hypertension. Discuss management of essential Pulmonary Hypertension.
2. Describe clinical features, evaluation and management of Obstructive Sleep Apnoea.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Pulmonary Rehabilitation.
2. Expiratory Central Airway Collapse.
3. Endoscopic Cryotherapy.
4. Targeted chemotherapy.
5. HFNC (High Flow Nasal Canula).
6. Impulse Oscillometry.
7. ECMO (Extracorporeal Membrane Oxygenation).
8. Long COVID.
9. H3N2.
10. Ivacaftor.

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