

**MASTER OF PHYSIOTHERAPY (MPT) DEGREE EXAMINATION
SECOND YEAR**

BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY

PAPER II – PHYSIOTHERAPY INTERVENTIONS

(SPECIALITY – II)

Q.P. Code: 278133

Time: Three Hours

Maximum: 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

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

- | | | | |
|--|----|---------|----|
| 1. Facilitating ventilatory patterns and breathing strategies. | 17 | 40 min. | 20 |
| 2. Evidence based practice in pulmonary rehabilitation. | 17 | 40 min. | 20 |

II. Write notes on :

- | | | | |
|---|---|---------|---|
| 1. Expiratory flow rate. | 4 | 10 min. | 6 |
| 2. Butterfly technique. | 4 | 10 min. | 6 |
| 3. Heart disease classification with relevance to exercise tolerance. | 4 | 10 min. | 6 |
| 4. Abnormal lung sounds. | 4 | 10 min. | 6 |
| 5. Rating of perceived exertion. | 4 | 10 min. | 6 |
| 6. Chronic respiratory disease questionnaire. | 4 | 10 min. | 6 |
| 7. Duke Activity status index. | 4 | 10 min. | 6 |
| 8. Diaphragm strengthening exercise. | 4 | 10 min. | 6 |
| 9. Positive expiratory pressure therapy. | 4 | 10 min. | 6 |
| 10. High frequency chest wall oscillation. | 4 | 10 min. | 6 |

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PAPER II – PHYSIOTHERAPY INTERVENTIONS

(SPECIALITY – II)

Q.P. Code: 278133

Time: Three Hours

Maximum: 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

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

- | | | | |
|--|----|---------|----|
| 1. Describe the environment ,monitoring and support in ICU?
Add note on physiotherapy assessment &treatment of Multiple sclerosis in ICU? | 17 | 40 min. | 20 |
| 2. Explain the pre & postoperative assessment and physiotherapy treatment for pneumonectomy? | 17 | 40 min. | 20 |

II. Write notes on :

- | | | | |
|--|---|---------|---|
| 1. Humidification. | 4 | 10 min. | 6 |
| 2. Interstitial lung disease. | 4 | 10 min. | 6 |
| 3. Rescue breathing technique. | 4 | 10 min. | 6 |
| 4. Respiratory Failure. | 4 | 10 min. | 6 |
| 5. Breathing pattern disorders. | 4 | 10 min. | 6 |
| 6. Fitness Assessment and Interpretation. | 4 | 10 min. | 6 |
| 7. Baseline dyspnea Index. | 4 | 10 min. | 6 |
| 8. Energy Conservation technique. | 4 | 10 min. | 6 |
| 9. Implication for Physiotherapy from ECG. | 4 | 10 min. | 6 |
| 10. Obstructive sleep apnea. | 4 | 10 min. | 6 |

**MASTER OF PHYSIOTHERAPY (MPT) DEGREE EXAMINATION
SECOND YEAR**

BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY

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(SPECIALITY – II)

Q.P. Code: 278133

Time: Three Hours

Maximum: 100 marks

Answer All questions

I. Elaborate on:

(2 x 20 = 40)

1. Enumerate the physiotherapy evaluation and intervention for cystic fibrosis from neonate to adulthood?
2. Describe the physical rehabilitation of the ventilator-dependent patient?

II. Write notes on:

(10 x 6 = 60)

1. Artificial airways.
2. Advanced airway clearance technique.
3. Aerobic training in Coronary artery disease.
4. Indications of Noninvasive ventilation.
5. Thoracic expansion exercise.
6. Bronchiolitis.
7. Panic attack.
8. Physiotherapy in cancer rehabilitation.
9. MET for rib dysfunction.
10. Chest wall disorders.

[LD 133]

OCTOBER 2013

Sub. Code: 8133

**MASTER OF PHYSIOTHERAPY (MPT) DEGREE EXAMINATION
SECOND YEAR**

BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY

PAPER II – PHYSIOTHERAPY INTERVENTIONS

(SPECIALITY – II)

Q.P. Code: 278133

Time: Three Hours

Maximum: 100 marks

Answer All questions

I. Elaborate on:

(2 x 20 = 40)

1. Respiratory muscle training techniques.
2. Advanced airway clearance techniques.

II. Write notes on:

(10 x 6 = 60)

1. Principles of exercise testing.
2. Arm ergometer.
3. Pacing activities.
4. Flutter.
5. Target heart rate.
6. Quality of life in COPD.
7. Metabolic equivalent.
8. Ventilator weaning.
9. Ejection fraction.
10. Endurance exercise prescription.

[LE 133]

APRIL 2014

Sub. Code: 8133

**MASTER OF PHYSIOTHERAPY (MPT) DEGREE EXAMINATION
SECOND YEAR**

BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY

PAPER II – PHYSIOTHERAPY INTERVENTIONS

(SPECIALITY – II)

Q.P. Code: 278133

Time: Three Hours

Maximum: 100 marks

Answer All questions

I. Elaborate on:

(2 x 20 = 40)

1. Physiotherapy management for patient with peripheral vascular disease.
2. Life style modifications.

II. Write notes on:

(10 x 6 = 60)

1. Autogenic drainage.
2. Suction.
3. Buerger allen's exercise.
4. Acepella.
5. Cardio vascular conditioning.
6. Positive airway pressure therapy.
7. Sustained maximal inspiration.
8. Exercise capacity.
9. Bagging.
10. Claudication.

[LF 133]

OCTOBER 2014

Sub. Code: 8133

**MASTER OF PHYSIOTHERAPY (MPT) DEGREE EXAMINATION
SECOND YEAR**

BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY

PAPER II – PHYSIOTHERAPY INTERVENTIONS

(SPECIALITY – II)

Q.P. Code: 278133

Time: Three Hours

Maximum: 100 marks

Answer All questions

I. Elaborate on:

(2 x 20 = 40)

1. Discuss in detail about the Pros and Cons of Prone lung ventilation in Adult Respiratory distress syndrome.
2. Discuss in detail about the METS method of inpatient and outpatient cardiac rehabilitation for a 45 year old male who underwent CABG for his triple vessel diseases.

II. Write notes on:

(10 x 6 = 60)

1. Relaxation techniques.
2. Rationale for using High frequency chest wall oscillations.
3. Manual chest stretching.
4. Air shifts.
5. Mechanical insufflators-exsufflator.
6. Specific considerations in giving chest physiotherapy to neonates.
7. Bronchopulmonary dysplasia.
8. Chest cuirass ventilator.
9. Tracheostomy care in Intensive Care Unit.
10. Non invasive ventilation.

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PAPER II – PHYSIOTHERAPY INTERVENTIONS

(SPECIALITY – II)

Q.P. Code: 278133

Time: Three Hours

Maximum: 100 marks

Answer All questions

I. Elaborate on:

(2 x 20 = 40)

1. Explain in detail about the physiological changes in cardio-vascular system of elderly people and explain the Cardio respiratory fitness for 70 years old male with hypertension under medication.
2. Define Restrictive lung disease and list out intra and extra-pulmonary causes with physiotherapy intervention of Restrictive lung disease patient under ventilator support.

II. Write notes on:

(10 x 6 = 60)

1. Autogenic drainage and its stages.
2. Glosso-pharyngeal breathing and its implication.
3. Define Normal Breathing pattern and its variation.
4. Advantage and disadvantage of Acapella.
5. Uses of PNF technique in Chest Physiotherapy.
6. How to Prescribe Exercise protocol for fitness.
7. Flow volume loop and its prediction.
8. Cardiac Asthma and its intervention.
9. Burgers exercise.
10. Holter's monitoring.

[LH 133]

OCTOBER 2015

Sub. Code: 8133

**MPT DEGREE EXAMINATION
SECOND YEAR
SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS
BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY**

Q.P. Code : 278133

Time : Three hours

Maximum : 100 marks

I. Elaborate on:

(2 x 20 = 40)

1. Enumerate the Pre and Post operative Physiotherapy management for a 5 yr old boy who has been diagnosed with TOF.
2. Explain in detail the invasive and non- invasive mechanical ventilators and the Physiotherapy management of a ventilator dependant patient.

II. Write notes on:

(10 x 6 = 60)

1. Acute respiratory failure.
2. Cardiac catheterization.
3. Assisted coughing techniques.
4. Various kinds of protective reflexes influencing tracheo-bronchial tree.
5. Holter monitor.
6. Oxygen toxicity and its management.
7. Broncho-pulmonary hygiene.
8. Pulmonary stenosis.
9. Treadmill test protocol and its interpretation.
10. Principles of aerosol therapy.

[LI 133]

APRIL 2016

Sub. Code: 8133

**MPT DEGREE EXAMINATION
SECOND YEAR
SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS
BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY**

Q.P. Code : 278133

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. List the Various Phases of Cardiac Rehabilitation and its application for a 45 year old man with Acute Coronary Syndrome.
2. Explain in detail the various Airway clearance techniques for a patient suffering from Chronic Bronchiectasis.

II. Write notes on:

(10 x 6 = 60)

1. Vo₂ max and its influence on ageing heart.
2. Left bundle branch block.
3. Obstructive sleep apnea.
4. Tank respirator and its historic perspectives.
5. V/Q Mismatch and its clinical significance.
6. Air embolism.
7. Hemodynamic effects of aerobic exercises.
8. Transposition of great arteries.
9. Sustained maximal inspiration and its clinical application.
10. Intermittent compression therapy and its advantages.

[LJ 133]

OCTOBER 2016

Sub. Code: 8133

**MPT DEGREE EXAMINATION
SECOND YEAR
SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS
BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY**

Q.P. Code : 278133

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Principle of exercise prescription for Myocardial Infarction patient.
2. Respiratory muscle weakness assessment and training techniques.

II. Write notes on:

(10 x 6 = 60)

1. Flutter.
2. Claudication.
3. Manual chest stretching.
4. Inspiratory reserve volume.
5. Bronchopulmonary dysplasia.
6. ECMO.
7. Rocking bed.
8. Pursed lip breathing technique.
9. Artificial airways.
10. Humidification.

[LK 133]

MAY 2017

Sub. Code: 8133

**MPT DEGREE EXAMINATION
SECOND YEAR
SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS
BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY**

Q.P. Code : 278133

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Rehabilitation of patient with Lung Transplantation.
2. Describe the various Peripheral Vascular disorders and briefly write the importance of physiotherapy for Venous and Lymphatic disorders.

II. Write notes on:

(10 x 6 = 60)

1. Importance of assisted coughing techniques.
2. Age related changes in pulmonary system.
3. Positive expiratory pressure devices and its effects on airway clearance.
4. Physiological effects of prone position.
5. Physiotherapy for diaphragmatic paralysis.
6. Various lung expansion therapies.
7. Evidence based practice in cardiopulmonary physiotherapy.
8. Principles of exercise prescription.
9. Role of physiotherapist in neonatal intensive care unit.
10. Life style modifications for preventing cardiovascular disorders.

[LL 133]

OCTOBER 2017

Sub. Code: 8133

MPT DEGREE EXAMINATION
SECOND YEAR
SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS
BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY

Q.P. Code : 278133

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss in detail about the Cardiac Rehabilitation program and add a note on importance of community Cardiac Rehabilitation programs.
2. Explain in detail about the Pulmonary and Cardiac factors altering physical exercise capacity for an elderly patient and precaution while prescribing exercise.

II. Write notes on:

(10 x 6 = 60)

1. PNF techniques used in chest physiotherapy.
2. Effects of abdominal corset on expiratory capacity.
3. Flow resistors.
4. Mucociliary escalator.
5. Exercise induced ischemia.
6. Factors influencing exercise prescription for COPD patient.
7. Open Vs closed system suction.
8. Diaphragmatic scoop technique.
9. Fowler's position and its importance.
10. Indications for tracheostomy and various tracheostomy tubes.

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

[LM 133]

MAY 2018

Sub. Code: 8133

**MPT DEGREE EXAMINATION
SECOND YEAR
SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS
BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY**

Q.P. Code : 278133

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss in detail about the principles of an aerobic training program and nutritional requirements for a 45 year old male COPD patient who is undergoing outpatient pulmonary Rehabilitation.
2. Explain the various body positions and its effects on ventilation and perfusion relationship in treating a pulmonary patient.

II. Write notes on:

(10 x 6 = 60)

1. Forced expiratory techniques.
2. Postural drainage vs autogenic drainage.
3. Venturi.
4. PNF techniques for chest mobility.
5. Exercise induced Asthma and its management.
6. Oxygen toxicity.
7. Non invasive ventilation.
8. Detrimental and beneficial effects of manual hyperinflation.
9. High flow oxygen therapy devices.
10. Difficult air way intubation.

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

[LN 133]

OCTOBER 2018

Sub. Code: 8133

**MPT DEGREE EXAMINATION
SECOND YEAR
SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS
BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY**

Q.P. Code : 278133

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Evidence based practice in Cardiopulmonary Rehabilitation.
2. Advanced airway clearance techniques.

II. Write notes on:

(10 x 6 = 60)

1. Pacing activities.
2. Acepella.
3. Metabolic equivalent.
4. Chronic respiratory disease questionnaire.
5. Abnormal lung sounds.
6. Diaphragmatic sniff technique.
7. Type II respiratory failure.
8. Baseline dyspnea Index.
9. Indications of invasive ventilation.
10. Exercise induced Asthma.

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

[LO 133]

MAY 2019

Sub. Code: 8133

MPT DEGREE EXAMINATION

SECOND YEAR

**BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY
SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS**

Q.P. Code : 278133

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Rehabilitation of patient with Lung transplantation.
2. Physiotherapy management in neonatal ICU.

II. Write notes on:

(10 x 6 = 60)

1. Duke activity status index.
2. Expiratory flow rate.
3. Inter-costal drains.
4. Fev_1 .
5. Venturi.
6. CPR.
7. Aerobic training in coronary artery disease.
8. Ejection fraction.
9. Flutter.
10. Target heart rate range.

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

[LP 133]

OCTOBER 2019

Sub. Code: 8133

MPT DEGREE EXAMINATION

SECOND YEAR

**BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY
SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS**

Q.P. Code : 278133

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss in detail airway clearance technique.
2. Cardiac Rehabilitation.

II. Write notes on:

(10 x 6 = 60)

1. Modes of ventilator.
2. Pneumothorax.
3. Tracheostomy care.
4. Pursed lip breathing.
5. Circuit training.
6. Mode of entry for suction.
7. Contra indication for postural drainage.
8. Claudication.
9. Emphysema.
10. Fitt principle.

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

[LQ 1120]

NOVEMBER 2020
(MAY 2020 SESSION)

Sub. Code: 8133

MPT DEGREE EXAMINATION

SECOND YEAR

**BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY
SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS**

Q.P. Code : 278133

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss in detail concepts in Cardiopulmonary rehabilitation. Add a detail note on Evidence based practice in Pulmonary rehabilitation.
2. Discuss in detail means of facilitating Ventilator patterns and Breathing strategies for patients with Chronic Obstructive Pulmonary Disorders.

II. Write notes on:

(10 x 6 = 60)

1. Body positioning techniques.
2. Manual Hyperinflation and its uses.
3. Life style modifications.
4. Neonatal ICU.
5. Cardio pulmonary Fitness Training.
6. Management of Chest Trauma.
7. PT management of Restrictive Lung Disease.
8. Mechanical Respiratory Device.
9. Post-operative PT care for Paediatric patients.
10. Disability evaluation for patients with Occupational Lung Disease.

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

[MPT 0321]

MARCH 2021

Sub. Code: 8133

(OCTOBER 2020 EXAM SESSION)

MPT DEGREE EXAMINATION

SECOND YEAR

BRANCH III – PHYSIOTHERAPY IN CARDIO - RESPIRATORY

SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS

Q.P. Code : 278133

Time : Three hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss detail about pulmonary rehabilitation for a 60 years old patient with lobectomy.
2. Define myocardial infarction. Describe aetiology, Clinical features, Diagnosis and detailed management of myocardial infarction.

II. Write notes on:

(10 x 6 = 60)

1. NAGI Model
2. Clubbing
3. Microcirculation
4. Dead space
5. Post traumatic stress disorder
6. Electrocardiogram
7. Kyphoscoliosis
8. Assessment of venous disorder
9. Paradoxical breathing
10. Thromboangitis obliterans

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

[MPT 0921]

**SEPTEMBER 2021
(MAY 2021 EXAM SESSION)**

Sub. Code: 8133

MPT DEGREE EXAMINATION

SECOND YEAR - (Regulations for the candidates admitted on or before the A.Y.2017-2018)

SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS

BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY

Q.P. Code : 278133

Time : Three hours

Answer ALL Questions

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe the various Peripheral Vascular Disorders and elaborate its management.
2. Describe in detail about the pre and post operative assessment and its physiotherapy management for Pneumonectomy.

II. Write notes on:

(10 x 6 = 60)

1. Correlation of VO₂ max and Heart Rate.
2. Evidence Based Practice in Cardiac Rehabilitation.
3. Lung Expansion Therapies.
4. Aerosol Delivery Devices.
5. Extracorporeal Membrane Oxygenation.
6. Treadmill Test Protocol & its interpretation.
7. Interstitial Lung Diseases.
8. Physiotherapy Management for Tracheostomy patients.
9. Autogenic Drainage.
10. Physiotherapy Management for respiratory impairments in Ankylosing Spondylitis.

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

[MPT 0222]

**FEBRUARY 2022
(OCTOBER 2021 EXAM SESSION)**

Sub. Code: 8133

MPT DEGREE EXAMINATION

SECOND YEAR - (Regulations for the candidates admitted on or before the A.Y.2017-2018)

SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS

BRANCH III – PHYSIOTHERAPY IN CARDIO RESPIRATORY

Q.P. Code : 278133

Time : Three hours

Answer ALL Questions

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Explain in detail about the aerobic training, its principles and systemic adjustments during aerobic exercise. Add a note on aerobic training protocol for 60 year old female patient.
2. Enumerate in detail about the METS method of inpatient Cardiac Rehabilitation for 55 year old male who underwent CABG for his Double Vessel Disease.

II. Write notes on:

(10 x 6 = 60)

1. Air Shift Maneuver.
2. Baseline Dyspnea Scale.
3. Six minute walk test evaluation.
4. Facilitating ventilatory patterns.
5. Nebulizer therapy.
6. Evidence based practice in pulmonary rehabilitation.
7. Arm Ergometer.
8. Physiotherapy management for Rib Fracture.
9. Active cycle of breathing technique.
10. Exercise induced asthma.

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

[MPT 0223]

**FEBRUARY 2023
(OCTOBER 2022 EXAM SESSION)**

Sub. Code: 8133

MPT DEGREE EXAMINATION

**SECOND YEAR - (Regulations for the candidates admitted on or before the A.Y.2017-2018)
SPECIALITY PAPER II – PHYSIOTHERAPY INTERVENTIONS
BRANCH III – PHYSIOTHERAPY IN CARDIO - RESPIRATORY**

Q.P. Code : 278133

Time : Three hours

Answer ALL Questions

Maximum : 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe in detail assessment, Physiotherapy management for patient with peripheral vascular disease.
2. Respiratory muscle weakness assessment and training techniques.

II. Write notes on:

(10 x 6 = 60)

1. Forced expiratory techniques.
2. Acepella.
3. Tracheostomy care.
4. Aerosol therapy.
5. Blunt injury of chest.
6. Thoracic expansion exercise.
7. Physiology of Body positioning.
8. Suction-mode of entry.
9. Edema.
10. PEF.
