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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER – I: SECTION “A”: GENERAL IN ALL TOPICS IN COMMUNITY PHYSIOTHERAPY
(SPECIALITY AREA: COMMUNITY PHYSIOTHERAPY)

Monday, June 02, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Discuss application of ICF in physiotherapy.
2. Discuss barriers and methods of advocation of a barrier free environment.
3. What is care giver burden? What are the implications of care giver fatigue and role of physiotherapy in alleviating these?
4. Discuss early intervention in developmental disorders under the following headings:
 - 4A. Primordial prevention
 - 4B. Primary care
 - 4C. Secondary care



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER - I: SECTION "A": GENERAL IN ALL TOPICS IN
CARDIOPULMONARY SCIENCES
(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)

Monday, June 02, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Elaborate on Bronchial hygiene mechanism and the different techniques in airway clearance.
2. Physiotherapy Management for COPD.
3. Exercise Prescription for hypertention.
4. **Write short notes on:**
 - 4A. Anatomical and Physiological difference in neonatal respiratory system
 - 4B. Discuss the use of monitoring in Medical ICU
 - 4C. Pathomechanics of thorax in COPD
 - 4D. Weaning criteria of mechanical ventilation
 - 4E. Discuss the modes of mechanical ventilator

(25 marks × 4 = 100 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014
SUBJECT: PAPER - I: SECTION "A": GENERAL IN ALL TOPICS IN ORTHOPAEDIC CONDITIONS
(SPECIALITY AREA: ORTHOPAEDICS)

Monday, June 02, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

- ✍ Answer ALL questions.
- ✍ All questions carry equal marks.

1. Discuss the Types, Assessment and management of Sacroiliac Joint Dysfunctions.
2. What are the components of sports fitness? Explain the methods to Assess and improve the sports fitness components.
3. Describe the pathomechanics for various deformities in rheumatoid hand.
4. **Write short notes on:**
 - 4A. Types and causes of Shoulder Impingement Syndrome
 - 4B. Work place intervention for Carpal Tunnel Syndrome
 - 4C. Role of resisted isometric tests
 - 4D. Assessment of talar position
 - 4E. Moberg pick up test



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014
SUBJECT: PAPER – I: SECTION “A”: GENERAL IN ALL TOPICS IN PAEDIATRIC PHYSIOTHERAPY
(SPECIALITY AREA: PAEDIATRIC PHYSIOTHERAPY)

Monday, June 02, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ Answer ALL questions.

1. List various theories of motor development and motor control. Explain in detail about Oromotor development.
(12+13 = 25 marks)
2. Explain principles of various approaches in pediatric rehabilitation.
(25 marks)
3. Explain the physiology of labour and complications of labour for mother and child.
(25 marks)
4. Enumerate various physiological changes in pregnancy and explain how they are important while planning the exercise program in antenatal period.
(25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER – I: SECTION “B”: RECENT ADVANCES IN PAEDIATRIC PHYSIOTHERAPY
(SPECIALITY AREA: PAEDIATRICS)

Wednesday, June 04, 2014

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

- ✍ Answer ALL questions.
- ✍ All questions carry equal marks.

1. Advances in assessment and treatment of incontinence.
2. Outcome measures and orthosis in brachial plexus injury.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER - I: SECTION "B": RECENT ADVANCES IN ORTHOPAEDIC CONDITIONS
(SPECIALITY AREA: ORTHOPAEDICS)

Wednesday, June 04, 2014

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

- ✍ Answer ALL questions.
- ✍ All questions carry equal marks.

1. Role of proprioceptive rehabilitation in chronic ankle instability.
2. Discuss the recent advances in assessment and rehabilitation of Whiplash injury.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART-II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER - I: SECTION "B": RECENT ADVANCES IN CARDIOPULMONARY SCIENCES
(SPECIALITY AREA: CARDIOPULMONARY SCIENCES)

Wednesday, June 04, 2014

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

- ✍ **Answer ALL questions.**
- ✍ **All questions carry equal marks.**

1. Exercise tests in cardiopulmonary rehabilitation.
2. Prone positioning-discuss advantages and barriers in implementing the same.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

**SUBJECT: PAPER – I: SECTION “B”: RECENT ADVANCES IN COMMUNITY PHYSIOTHERAPY
(SPECIALITY AREA: COMMUNITY PHYSIOTHERAPY)**

Wednesday, June 04, 2014

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

- ✍ Answer ALL questions.
- ✍ All questions carry equal marks.

1. Exercise prescription in elderly – its need and evidence.
2. Recent trends in the concepts of Functional Capacity Evaluation.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

**SUBJECT: PAPER – I: SECTION “B”: RECENT ADVANCES IN NEUROLOGICAL CONDITIONS
(SPECIALITY AREA: NEUROSCIENCES)**

Wednesday, June 04, 2014

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

- ✍ **Answer ALL questions.**
- ✍ **All questions carry equal marks.**

1. Mirror therapy in stroke rehabilitation
2. Exercise prescription in multiple sclerosis



MANIPAL UNIVERSITY**MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014****SUBJECT: PAPER – I: SECTION “A”: GENERAL IN ALL TOPICS IN NEUROLOGICAL CONDITIONS
(SPECIALITY AREA: NEUROSCIENCES)**

Monday, June 02, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Discuss the role of cerebellum in motor control and motor learning. Explain the management of a patient with focal cerebellar disorder.

(15+10 = 25 marks)

2. Describe equilibrium reactions. Explain its role in development of postural control.

(10+15 = 25 marks)

3. Describe the technique, interpretation and implications of F wave.

(10+10+5 = 25 marks)

4. **Write short notes on the following:**

4A. Modifications in wheelchair for a patient with C6 level injury

4B. Techniques to reduce rigidity

4C. Role of proprioceptors on maintenance of balance

4D. Indications and contraindications for myofascial release

4E. Tardieu Scale

(5 marks × 5 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER - II: ELECTIVE: CARDIOPULMONARY REHABILITATION
(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Discuss mechanisms and assessment of dyspnea. Rationale for selecting physiotherapy intervention for managing COPD patient with dyspnea.
2. Discuss the post operative complications and physical therapy assessment and management of the abdominal surgical patient.
3. Assessment and respiratory management for traumatic C5 quadriplegics.
4. Role of physiotherapy management in lymphedema following right radical mastectomy.

(25 marks × 4 = 100 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER - II: ELECTIVE: ADULT NEUROLOGY
(SPECIALITY AREA: NEUROSCIENCES)

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Explain the restoration of motor control in a 25 years old patient with right hemiplegia.
2. Explain the physiotherapy management of a C6 level spinal cord injury patient.
3. Explain in detail about physiotherapy management for a 32 years old male patient with severe traumatic brain injury.
4. **Short notes:**
 - 4A. Benign Positional Paroxysmal Vertigo
 - 4B. Management of body image and body scheme disorders
 - 4C. Bell's palsy
 - 4D. Observational Gait Analysis in Neurology
 - 4E. Progressive Bulbar palsy



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER - II: ELECTIVE: GERIATRICS
(SPECIALITY AREA: COMMUNITY PHYSIOTHERAPY)

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

- ✍ **Answer ALL questions.**
- ✍ **All questions carry equal marks.**

1. Explain in detail the exercise testing and prescription for healthy elderly population. Describe the specific precautions to be taken, and the risks associated with over exertion in elderly.
2. Describe an exercise based rehabilitation program for elderly subjects with knee joint replacement surgeries.
3. What are the various psycho-social issues encountered in geriatric rehabilitation and how they can be addressed?
4. What are the various changes in central nervous system and their manifestations with ageing? How to design a comprehensive preventive exercises program addressing these changes?



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER – II: ELECTIVE – HEALTH PROMOTION AND FITNESS

(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Classify types of exercise tests and add brief note on each. Enlist absolute and relative contra indication and termination criteria.
2. Write the rationale and exercise prescription in pregnancy.
3. Discuss the exercise prescription for an insulin dependent diabetes mellitus.
4. Write the clinical features of metabolic syndrome and in detail exercise prescription for the same.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER – II: ELECTIVE: ICU MANAGEMENT

(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Non invasive monitoring in ICU – discuss the principles of working, benefits and limitations. (25 marks)
2. Explain in detail the procedures to enhance lung expansion. (25 marks)
3. Discuss “Physical therapist in ICU – a team player”. (25 marks)
4. Physiologic effects of Mechanical ventilation on:
 - 4A. Cardiopulmonary system
 - 4B. Renal system(20+5 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER - II: ELECTIVE: OCCUPATIONAL HEALTH
(SPECIALITY AREA: COMMUNITY PHYSIOTHERAPY)

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

 Answer ALL questions.

1. Discuss manual material handling under the following headings:

- 1A. Risk factors for musculoskeletal disorders
- 1B. Determining maximum acceptable weight for lift

(15+10 = 25 marks)

2. Explain the role of job placement evaluation in prevention of work related musculoskeletal disorders.

(25 marks)

3. Write in detail the components of return to work for an injured nurse.

(25 marks)

4. Explain ergonomics under the following headings:

- 4A. Principles of ergonomics
- 4B. Ergonomic risk factors for musculoskeletal disorders

(15+10 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER - II: ELECTIVE: PAEDIATRIC NEUROLOGY
(SPECIALITY AREA: NEUROSCIENCES)

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

Answer ALL questions.

1. Explain the neuromotor, musculoskeletal, sensory perceptual and respiratory characteristics of a 5 month old child with hypotonia and plan the management for the same.
(25 marks)
2. An eight year old child with diagnosis of learning disability has difficulty in hand writing, copying and reading. Explain the neurophysiological basis for these features and plan the management.
(25 marks)
3. What is shaken baby syndrome and explain in detail the clinical characteristics and physiotherapy treatment of the same.
(25 marks)
4. **Answer the following:**
 - 4A. Discuss the types of Dynamic Ankle Foot Orthosis for spastic plantar flexed ankle. Mention the advantages and disadvantages of the same.
(7+8 = 15 marks)
 - 4B. Brazelton neonatal behavioral assessment scale.
(10 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

**SUBJECT: PAPER – II: ELECTIVE – SPORTS REHABILITATION
(SPECIALITY AREA: ORTHOPAEDICS)**

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Explain the following with emphasis on functional anatomy, technique and clinical implications:
 - 1A. Slump Test
 - 1B. Anterior Drawer's test for ankle joint
2. Discuss in detail regarding the functional progression following Bankart's repair in a volleyball player.
3. Discuss the comprehensive evaluation and management of a tennis player with a complaint of lateral elbow pain.
4. **Discuss regarding:**
 - 4A. Role of ergogenic aids in sports
 - 4B. Guidelines for prescription of sports shoe for a Basket ball player.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER - II: ELECTIVE: MANUAL THERAPY
(SPECIALITY AREA: ORTHOPAEDICS)

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Describe Muscle energy technique under the following:
 - 1A. Frette's laws of physiological spinal motion
 - 1B. Segmental vertebral dysfunction
 - 1C. How would you address posterior innominate rotation?
2. Explain in detail Maitland's school of thought
3. Explain the role of clinical reasoning in Manual therapy
4. **Write short notes on:**
 - 4A. Quebec task force classification of spinal disorders
 - 4B. Base test and sensitizing tests
 - 4C. NAGS and SNAGS
 - 4D. Rationale for Neuro-musculoskeletal taping techniques



MANIPAL UNIVERSITY**MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014****SUBJECT: PAPER - II: ELECTIVE – HAND REHABILITATION
(SPECIALITY AREA: ORTHOPAEDICS)**

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

- ✍ **Answer ALL questions.**
✍ **All questions carry equal marks.**

1. Explain the different patterns of chronic stiff hand. How do you manage chronic stiff hand?
(25 marks)
2. Enumerate patho-mechanical factors contributing to rheumatoid hand deformities. Write the pathomechanics, staging, conservative and surgical management of boutonnière deformity.
(4+5+4+3+6+3 = 25 marks)
3. Explain the role and pathomechanics of round back shoulder on development of upper quarter dysfunctions.
(25 marks)
4. **Write short notes on:**
 - 4A. Carpal instability
 - 4B. Deformities in burns hand
 - 4C. Types of prosthetic terminal devices
 - 4D. Cervico-brachial pain syndrome
 - 4E. Wrist arthrodesis

(25 marks)



MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER - II: ELECTIVE: WOMEN'S HEALTH PHYSIOTHERAPY
(SPECIALITY AREA: PAEDIATRIC PHYSIOTHERAPY)

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Discuss exercise and PCOS. (25 marks)
2. What are the evaluation tool for post mastectomy lymph edema and rationale for selection of physiotherapy technique in the management of post-mastectomy lymph edema? (10+15 = 25 marks)
3. Discuss the physiotherapy evaluation and management of post menopausal osteoporosis. (10+15 = 25 marks)
4. **Write short notes on:**
 - 4A. Complications of Gestational diabetes mellitus
 - 4B. Antenatal exercise program
 - 4C. Physiotherapy treatment following caesarian section
 - 4D. Diastasis recti abdominus- physiotherapy treatment
 - 4E. Pelvic inflammatory diseases- physiotherapy management(5 marks × 5 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2014

SUBJECT: PAPER - II: ELECTIVE: PAEDIATRIC PHYSIOTHERAPY
(SPECIALITY AREA: PAEDIATRIC PHYSIOTHERAPY)

Friday, June 06, 2014

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

Answer ALL questions.

1. Classify hypotonia in children and its Physiotherapy management. (25 marks)
2. Describe the physiotherapeutic management of premature infants. (25 marks)
3. Discuss the prescription of exercise in children with childhood obesity. (25 marks)
4. **Write short notes:**
 - 4A. Cystic fibrosis and its management
 - 4B. Fetal Alcohol Syndrome
 - 4C. Conductive education
 - 4D. Juvenile Rheumatoid Arthritis and its physiotherapy management
 - 4E. Development of Bladder control in children(5 marks×5 = 25 marks)

