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## MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

SUBJECT: PAPER - I: SECTION "A": GENERAL IN ALL TOPICS IN ORTHOPAEDIC CONDITIONS  
(SPECIALITY AREA: ORTHOPAEDICS)  
(2013 REGULATION)

Monday, June 18, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Discuss the role of core and pelvic stability in injury prevention.
2. Discuss the various treatment approaches for Cervico-genic headache.
3. Discuss assessment and management of stiffhand.
4. **Write a short note on:**
  - 4A. Assessment of patellar position.
  - 4B. Biomechanical changes after gleno-humeral arthrodesis.
  - 4C. Rehabilitation after claw correction.
  - 4D. T4 syndrome.
  - 4E. Combined movement testing for cervical spine.

(25 marks × 4 = 100 marks)



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# MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

SUBJECT: PAPER – I: SECTION “A”: GENERAL IN ALL TOPICS IN COMMUNITY PHYSIOTHERAPY  
(SPECIALITY AREA: COMMUNITY PHYSIOTHERAPY)  
(2013 REGULATIONS)

Monday, June 18, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. What are the types of CBR evaluation? Explain the role of government and NGOs in the CBR program.

(15+10 = 25 marks)

2. Explain the role of assistive devices in mobility disorders. Add a note on issues to be considered before prescription of assistive devices.

(25 marks)

3. Explain the levels of prevention of disabilities. Add a note of importance of fitness in community dwellers.

(15+10 = 25 marks)

4. **Short notes:**

4A. Caregiver burden

4B. ICF

4C. Vibration hazards

(25 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION****MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018****SUBJECT: PAPER – I: SECTION “A”: GENERAL IN ALL TOPICS IN PAEDIATRIC AND WOMEN HEALTH  
(SPECIALITY AREA: PAEDIATRIC AND WOMEN HEALTH)  
(2013 REGULATIONS)**

Monday, June 18, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Highlight the significant aspects of the motor development between 9 to 12 months of age in infants.

(25 marks)

2. Discuss the various types of AFO, their advantage and their prescription for children with spastic diplegia.

(5+10+10 = 25 marks)

3. Explain in brief the anatomy of pelvis floor. Formulate an exercise regime for pelvic floor training for a multiparous female.

(10+15 = 25 marks)

4. **Write short notes:**

4A. Discuss any one Scale used to assess the pain in preterm infants

4B. Stages of labour

4C. Diastasis recti and its evaluation

4D. Kangaroo Mother Care

4E. Neck on body righting reflex

(5·marks × 5 = 25 marks)



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# MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

SUBJECT: PAPER - I: SECTION "A": GENERAL IN ALL TOPICS IN  
CARDIO PULMONARY SCIENCES

(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)  
(2013 REGULATION)

Monday, June 18, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Explain in detail the physiology of mucociliary escalation and add a brief note on the various methods to improve bronchial hygiene.

(25 marks)

2. Influence of cardiovascular and respiratory medications on exercise response.

(25 marks)

3. Discuss the submaximal tests commonly used in clinical practice.

(25 marks)

4. **Write short notes on:**

4A. Prone positioning.

4B. Absolute and relative contraindications to clinical exercise testing.

4C. Ventilatory strategies for ARDS.

4D. Assisted coughing techniques.

4E. Principle of Venturi.

(5 marks × 5 = 25 marks)





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# MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

SUBJECT: PAPER – I: SECTION–A: GENERAL IN ALL TOPICS IN NEUROLOGICAL CONDITIONS  
(SPECIALITY AREA: NEUROSCIENCES)  
(2013 REGULATION)

Monday, June 18, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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✍ **Answer ALL questions.**

1. Write in detail about the role of spinal cord in motor control. Add a note on treadmill training in spinal cord injury.  
(15+10 = 25 marks)
2. Write in detail about the physiotherapy treatment techniques for spasticity.  
(25 marks)
3. Late responses and its clinical applications.  
(25 marks)
4. **Short notes on:**
  - 4A. Neuroplasticity.
  - 4B. Functional MRI in Physiotherapy.
  - 4C. Endurance assessment in stroke.
  - 4D. Principles of oromotor training.
  - 4E. Assistive devices for locomotion in children with muscular dystrophy.  
(25 marks)



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# MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

SUBJECT: PAPER – I: SECTION “B”: RECENT ADVANCES IN NEUROLOGICAL CONDITIONS  
(SPECIALITY AREA: NEUROSCIENCES)  
(2013 REGULATION)

Wednesday, June 20, 2018

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

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✍ Answer ALL questions.

✍ All questions carry equal marks.

1. Recent advances in assessment for high risk infants.
2. Discuss in brief about mirror neuron and mirror therapy. Enumerate the clinical implications of mirror therapy in various neurological conditions.



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## MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

SUBJECT: PAPER - I: SECTION "B": RECENT ADVANCES IN ORTHOPAEDIC CONDITIONS  
(SPECIALITY AREA: ORTHOPAEDICS)  
(2013 REGULATION)

Wednesday, June 20, 2018

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

✍ Answer ALL questions.

✍ All questions carry equal marks.

1. Discuss the Recent Advances in the Rehabilitation of Anterior Cruciate ligament Injuries.
2. Discuss the Recent advances in Clinical tests and management in lumbar segmental instability.



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## MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

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

Wednesday, June 20, 2018

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

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✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Assessment of posture and balance in pregnancy.
2. Balance and strength training in pediatrics.



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## MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

SUBJECT: PAPER – I: SECTION “B”: RECENT ADVANCES IN COMMUNITY PHYSIOTHERAPY  
(SPECIALITY AREA: COMMUNITY PHYSIOTHERAPY)  
(2013 REGULATIONS)

Wednesday, June 20, 2018

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

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

1. Dementia and its management.
2. Handling and facilitation techniques for infants with disability in the community.





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## MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART-II DEGREE EXAMINATION – JUNE 2018

SUBJECT: PAPER – I: SECTION “B”: RECENT ADVANCES IN CARDIO PULMONARY SCIENCES  
(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)  
(2013 REGULATION)

Wednesday, June 20, 2018

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

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✍ Answer ALL questions.

✍ All questions carry equal marks.

1. Management of respiratory problems in people with neurodegenerative conditions.
2. Chest physiotherapy for patient admitted to hospital with an acute exacerbation of chronic obstructive pulmonary disease.



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# MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

SUBJECT: PAPER - II: ELECTIVE: ADULT NEUROLOGY  
(SPECIALITY AREA: NEUROSCIENCES)  
(2013 REGULATION)

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

 **Answer ALL questions.**

1. Mention the prognostic factors following TBI. Describe the various approaches used to achieve motor control following TBI.  
(5+20 = 25 marks)
2. Explain the perceptual disorders following stroke and the management of the same.  
(25 marks)
3. Describe the biomechanics of static and dynamic stability of spine. Explain the spinal instability following laminectomy and its rehabilitation.  
(10+5+10 = 25 marks)
4. Explain the assessment methods and retraining techniques of Parkinson's gait.  
(25 marks)



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## MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

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

(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)

(2013 REGULATION)

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

 **Answer ALL questions.**

 **All questions carry equal marks.**

1. Discuss the exercise prescription guidelines for weight management.
2. What are the normal ranges and ratios of good, bad and total cholesterol? Explain the lipid metabolism and add a note on role of exercise in management of lipid disorders.
3. Describe the physiology of regulation of body temperature. Write in detail the physiological response and exercise adaptations in hot environment.
4. Discuss the worksite health promotion - advantages and guidelines for implementation.



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# MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

**SUBJECT: PAPER - II: ELECTIVE: PAEDIATRIC NEUROLOGY**  
(SPECIALITY AREA: NEUROSCIENCES)  
(2013 REGULATION)

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Describe the scales used for screening high risk infants. Write about its advantage and disadvantages.
2. What are the types of CP gait? Describe the common orthotic devices facilitating gait in children with CP. Discuss the factors affecting ambulation of CP children.
3. What are the sensory integration disorders related to vestibuloproprioceptive system. Write a note on the physiotherapy management of the same.
4. **Write short notes on:**
  - 4A. Factors responsible for the development of head control in a child
  - 4B. Development of the neural structures in the intrauterine life
  - 4C. Principles of training midrange control in dystonic CP
  - 4D. Modified Tardieu scale
  - 4E. Hippotherapy



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## MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

**SUBJECT: PAPER - II: ELECTIVE: MANUAL THERAPY**  
(SPECIALITY AREA: ORTHOPAEDICS)  
(2013 REGULATION)

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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 **Answer ALL questions.**

 **All questions carry equal marks.**

1. What are the concepts of mobilization with movement and its application in extremity pathologies?
2. Detail the concept of combined movements with example of upper cervical spine.
3. Explain in detail the Cyriax principle of assessment and treatment for lateral epicondylalgia.
4. Explain the principles of assessment and treatment of spinal pain using the concept of neurodynamics.





**MANIPAL ACADEMY OF HIGHER EDUCATION****MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018****SUBJECT: PAPER – II: ELECTIVE – SPORTS REHABILITATION****(SPECIALITY AREA: ORTHOPAEDICS)****(2013 REGULATION)**

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

**✍ Answer ALL questions.**

1. Discuss in detail regarding core stability of spine and its role in sports rehabilitation.  
(25 marks)
2. Explain in detail regarding evaluation and management of Patellofemoral pain syndrome in a female cyclist.  
(25 marks)
3. Discuss in detail regarding overhead throwing mechanics and rehabilitation of throwers shoulder.  
(25 marks)
4. **Write short notes on:**
  - 4A. Cardiopulmonary resuscitation
  - 4B. Hypernatremia
  - 4C. Periodization
  - 4D. Principles of taping
  - 4E. Female athlete's triad

(5 marks × 5 = 25 marks)



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## MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

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

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ Answer ALL questions.

1. Describe different evaluation tools in assessment of pelvic floor muscle.  
(25 marks)
2. Write assessment and management of a 64 year old postmenopausal woman diagnosed to have osteoporosis.  
(25 marks)
3. Discuss in detail principles of exercise prescription during antenatal period.  
(25 marks)
- 4A. Cardiovascular responses to exercise in pregnancy.
- 4B. Musculoskeletal problems associated with adolescence and its physiotherapy management.  
(12+13 = 25 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION****MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018****SUBJECT: PAPER - II: ELECTIVE: PAEDIATRICS PHYSIOTHERAPY  
(SPECIALITY AREA: PAEDIATRICS)  
(2013 REGULATION)**

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

**✍ Answer ALL questions.**

1. Discuss types and physiotherapy management for right hemiplegia following traumatic brain injury.  
(25 marks)
2. Discuss pre and post physiotherapy management following atrial septal defect closure for 3 year old child.  
(25 marks)
3. Discuss pre and postoperative physiotherapy management for 13 year old girl who is undergoing scoliosis corrective surgery.  
(25 marks)
4. **Short notes:**
  - 4A. Physiotherapy management following hemophillic arthritis of right knee.
  - 4B. Physiotherapy management following burns over chest in children.
  - 4C. Advantages and disadvantages of gross motor function measure.
  - 4D. Effect of exercise over training on musculoskeletal system in children.
  - 4E. Orthotic management in CTEV.

(5 marks × 5 = 25 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION****MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018****SUBJECT: PAPER - II: ELECTIVE: OCCUPATIONAL HEALTH AND ERGONOMICS  
(SPECIALITY AREA: COMMUNITY PHYSIOTHERAPY)****(2013 REGULATION)**

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Write in detail for a motor mechanic:
  - 1A. Components of work evaluation
  - 1B. Engineering controls
2. Explain the role of job placement evaluation in prevention of work related musculoskeletal disorders.
3. Write in detail the components of return to work for an injured nurse.
4. Explain ergonomics under the following headings:
  - 4A. Anthropometry
  - 4B. Principles of ergonomics



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## MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

**SUBJECT: PAPER - II: ELECTIVE: GERIATRICS REHABILITATION**  
(SPECIALITY AREA: COMMUNITY PHYSIOTHERAPY)  
(2013 REGULATION)

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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

1. Define stress incontinence. Write about mechanism of urinary loss due to stress incontinence?
2. What are the precautions and dangers associated with prescription of therapeutic exercises in geriatric rehabilitation? Essential components of a low risk, non supervised exercised program for general fitness in elderly.
3. Discuss about clinical implications of the aging process. Explain in detail non-pharmacological management of osteoarthritis.
4. Discuss the development of a therapeutic intervention plan for elderly with progressive degenerative disorders of the CNS.





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**MANIPAL ACADEMY OF HIGHER EDUCATION**

**MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018**

**SUBJECT: PAPER - II: ELECTIVE – HAND REHABILITATION**

**(SPECIALITY AREA: ORTHOPAEDICS)**

**(2013 REGULATION)**

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. What are the different methods of assessment of edema of the hand? Describe the techniques for reduction of edema.

(10+15 = 25 marks)

2. Classify skin grafts. Discuss the post operative management following a skin graft to the palm and thumb web space.

(10+15 = 25 marks)

3. Discuss the management of Colles fracture. Add a note on the common complications following Colles fracture.

(15+10 = 25 marks)

4. **Write short notes:**

4A. ROM evaluation of thumb

4B. Two point discrimination

4C. Semmes-Weinstein monofilaments

4D. Moberg pick up test

4E. Cock – up splint

(5 marks × 5 = 25 marks)



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## MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

**SUBJECT: PAPER - II: ELECTIVE: CARDIO PULMONARY REHABILITATION**  
(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)  
(2013 REGULATION)

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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

1. Outcome measures in cardiopulmonary rehabilitation.
2. Discuss on components of patient evaluation at entry to cardiac rehabilitation.
3. Candidacy and components of pulmonary rehabilitation.
4. Six minute Walk test – Evolution and Procedure.



Reg. No.

# MANIPAL ACADEMY OF HIGHER EDUCATION

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2018

**SUBJECT: PAPER – II: ELECTIVE: ICU MANAGEMENT**  
(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)  
(2013 REGULATION)

Friday, June 22, 2018

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Discuss physiotherapy management in patients with mechanical ventilation and add a note on weaning from mechanical ventilation.

(20+5 = 25 marks)

2. Discuss in detail chest physiotherapy techniques in preterm neonates. Add a note on different modes of oxygen delivery in neonatal ICU.

(15+10 = 25 marks)

3. Discuss different adjuncts used in bronchial hygiene therapy.

(25 marks)

4A. Discuss complications of positive pressure ventilation.

4B. Advantages and disadvantages of manual hyperinflation devices in adults.

(12+13 = 25 marks)

