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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016
SUBJECT: PAPER - I: SECTION "A": GENERAL IN ALL TOPICS IN ORTHOPAEDIC CONDITIONS
(SPECIALITY AREA: ORTHOPAEDICS)

(2012 Regulation)

Wednesday, June 01, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. List fractures of the femur in a tabular format. Describe common modes of injury, management options and prognosis. What are the physiotherapy measures you would adopt in the post operative phase to prevent remote complications of a supracondylar fracture of femur. Give rationale.
2. Describe normal gait cycle. What are the stance phase abnormalities you might see in a patient with advanced osteoarthritis of hip? Give biomechanical rationale.
3. What are work related musculoskeletal disorders (WRMSD)? Discuss common (WRMSD's) in the upper quarter in sedentary office workers. Briefly outline management options with rationale.
4. List shoulder dislocations and discuss management options.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016
SUBJECT: PAPER - I: SECTION “A”: GENERAL IN ALL TOPICS IN ORTHOPAEDIC CONDITIONS
(SPECIALITY AREA: ORTHOPAEDICS)

(2013 Regulation)

Wednesday, June 01, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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

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2. Describe normal gait cycle. What are the stance phase abnormalities you might see in a patient with advanced osteoarthritis of hip? Give biomechanical rationale.
3. What are work related musculoskeletal disorders (WRMSD)? Discuss common (WRMSD's) in the upper quarter in sedentary office workers. Briefly outline management options with rationale.
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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

SUBJECT: PAPER – I: SECTION “A”: GENERAL IN ALL TOPICS IN PAEDIATRIC AND WOMEN HEALTH
(SPECIALITY AREA: PAEDIATRIC AND WOMEN HEALTH)
(2013 REGULATIONS)

Wednesday, June 01, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

Answer ALL questions.

1. Describe how sensory systems contribute for motor control. Explain in detail about generalized motor programs theory.
(25 marks)
2. Chart out your plan of application of ergonomics and biomechanics to prevent musculoskeletal injuries during child bearing year.
(25 marks)
3. Explain the following:
 - 3A. Differences between intra uterine and extra uterine environments.
 - 3B. Management of cystic fibrosis.(25 marks)
4. Explain the following in detail:
 - 4A. Diastasis of recti abdomini muscle.
 - 4B. Taping techniques for Congenital Talipes Equinovarus in neonatal stage.(15+10 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

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

(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)

(2013 Regulation)

Wednesday, June 01, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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

1. Discuss exercise training for hypertension under following headings - Mechanism, Exercise prescription and precautions.
2. Physiological effects of different therapeutic body positions.
3. Discuss chest physiotherapy techniques for one month old child with bronchopulmonary dysplasia. Add a note on respiratory home care.
4. **Write short notes on:**
 - 4A. Physiological basis for humidification and nebulization.
 - 4B. Discuss the uses of chest radiograph in medical ICU.
 - 4C. Physiotherapy for a right upper lobectomy patient.
 - 4D. Autogenic drainage.
 - 4E. Beneficial and adverse effects of positive pressure ventilation.



MANIPAL UNIVERSITY**MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016****SUBJECT: PAPER – I: SECTION–A: GENERAL IN ALL TOPICS IN NEUROLOGICAL CONDITIONS
(SPECIALITY AREA: NEUROSCIENCES)****(2013 Regulation)**

Wednesday, June 01, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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

1. Write in detail about the Quantitative and qualitative responses in EMG.
2. Discuss the types of Neurogenic bladder and explain the rehabilitation of each type of bladder.
3. Explain the Oromotor rehabilitation in a hypotonic CP.
4. **Short notes:**
 - 4A. **Any five** Facilitatory techniques and their neurophysiological basis.
 - 4B. Facial muscle grading.
 - 4C. Cerebellum as a moderator of movement.
 - 4D. Stages of motor learning.
 - 4E. Sensory integration techniques for a child with tactile defensiveness.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

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

Wednesday, June 01, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Write in detail on theories of aging.
2. Discuss barriers and methods of advocacy of a barrier free environment.
3. Discuss stress incontinence under the following headings:
 - 3A. Causes
 - 3B. Management
4. Discuss application of ICF in physiotherapy.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

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

(2012 Regulation)

Friday, June 03, 2016

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

 Answer ALL questions.

 All questions carry equal marks.

1. Discuss the role of exercises in osteoporosis with evidence.
2. Discuss evidence for core strengthening in back pain.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016
SUBJECT: PAPER – I: SECTION “B”: RECENT ADVANCES IN NEUROLOGICAL CONDITIONS
(SPECIALITY AREA: NEUROSCIENCES)
(2013 Regulation)

Friday, June 03, 2016

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

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

1. Hippotherapy in children.
2. Virtual reality for upper extremity retraining in stroke.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

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

Friday, June 03, 2016

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

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

1. Pain in spinal cord injury.
2. Childhood obesity in India.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART-II DEGREE EXAMINATION – JUNE 2016

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

(2013 Regulation)

Friday, June 03, 2016

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

✍ **Answer ALL questions.**

1. Respiratory muscle training in spinal cord injury.
2. Endurance exercise and Autonomic function.



MANIPAL UNIVERSITY**MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016****SUBJECT: PAPER – I: SECTION “B”: RECENT ADVANCES IN PAEDIATRIC AND WOMEN HEALTH
(SPECIALITY AREA: PAEDIATRICS AND WOMEN HEALTH)**

Friday, June 03, 2016

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Discuss the evidence regarding application of hippotherapy in pediatric rehabilitation.
2. Discuss the evidence regarding the effectiveness of feedback in the management of stress incontinence.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

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

(2013 Regulation)

Friday, June 03, 2016

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

✍ Answer ALL questions.

✍ All questions carry equal marks.

1. Discuss the role of exercises in osteoporosis with evidence.
2. Discuss evidence for core strengthening in back pain.



MANIPAL UNIVERSITY**MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016****SUBJECT: PAPER - II: ELECTIVE: PAEDIATRIC NEUROLOGY****(SPECIALITY AREA: NEUROSCIENCES)****(2013 REGULATION)**

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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

1. Write in detail about the neurological basis of reflex maturation.
2. Write in detail about the assessment methods of infant and child motor development.
3. Explain the physiotherapy management of a 3 year old non ambulatory child with developmental delay using Neuro-developmental approach.
4. **Short notes:**
 - 4A. Vojta therapy
 - 4B. Obstetric brachial plexus palsy
 - 4C. Sensory Integration Praxis Test (SIPT)
 - 4D. Adaptive seating equipments for physically challenged children
 - 4E. Physiotherapy in High risk infant



MANIPAL UNIVERSITY**MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016****SUBJECT: PAPER - II: ELECTIVE: ADULT NEUROLOGY
(SPECIALITY AREA: NEUROSCIENCES)
(2013 REGULATION)**

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Describe clinical features and physiotherapy management for the lateral medullary syndrome.
2. What is pusher's syndrome? Explain the role of physiotherapy.
3. Explain benign paroxysmal positional vertigo. Describe the role of physiotherapy for the same.
4. **Write short notes on:**
 - 4A. Role of physiotherapy in Parkinson's gait.
 - 4B. Physiotherapy management for postsurgical management for patient with cerebro-pontine angle tumours.
 - 4C. Sequelae to meningitis and role of physiotherapy.
 - 4D. Respiratory complications and care for a patient with traumatic brain injury.
 - 4E. Functional reorganization theory.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

SUBJECT: PAPER – II: ELECTIVE – SPORTS REHABILITATION

(SPECIALITY AREA: ORTHOPAEDICS)

(2013 REGULATION)

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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

1. Discuss in brief regarding:
 - 1A. Methods for maximizing energy stores
 - 1B. Psychological factors involved in performance
 - 1C. Anthropometry and performance
 - 1D. Circuit training
 - 1E. Procedure and interpretation of Lachman's test
2. Discuss regarding Sport specific function testing and progressive training in a basket ball player with lateral ankle sprain.
3. Discuss regarding possible pathomechanics involved in shoulder pain of a tennis player and describe the detailed physiotherapy management for the same.
4. Discuss regarding the effect of DOMS on various physical fitness parameters that influence athletic performance.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

SUBJECT: PAPER - II: ELECTIVE – HAND REHABILITATION
(SPECIALITY AREA: ORTHOPAEDICS)

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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

1. Explain in detail the Conservative management of Carpal tunnel syndrome.
2. Explain in detail the evaluation methods and management strategies for stiff hand.
3. Describe in detail the evaluation and management Chronic regional Pain syndrome.
4. **Write a short note on:**
 - 4A. Splinting in radial nerve Injury
 - 4B. Evaluation of edema
 - 4C. Joint protection principles in Rheumatoid arthritis
 - 4D. Jebson taylor test



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

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

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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

1. Explain in detail the role of spinal Proprioception in the management of patients with neck and back pain.
2. Explain in detail the VBI testing approach and its application in physical therapy practice.
3. Types of clinical reasoning and hypothesis testing.
4. **Write a short note on:**
 - 4A. Deep transverse friction massage
 - 4B. Movement diagram and its application
 - 4C. Nags and snags
 - 4D. Frette's laws



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

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

(2013 REGULATION)

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Dyspnea – Causes, pathophysiology and management. (25 marks)
2. Discuss the Physiologic mechanism of how modifiable risk factors contribute towards atherogenesis and how exercise training influences these factors. (25 marks)
3. Risk Stratification in primary prevention of cardiac rehabilitation. (25 marks)
4. Write a brief note on all the outcome measures of:
 - 4A. cardiac rehabilitation
 - 4B. pulmonary rehabilitation(12½+12½ = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

SUBJECT: PAPER – II: ELECTIVE – HEALTH PROMOTION AND FITNESS
(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)

(2013 REGULATION)

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

 **Answer ALL questions.**

1. Acute responses and chronic adaptations of metabolic, thermoregulatory and renal system to aerobic exercise in healthy individuals.

(25 marks)

2. Fatigue – Causes and Management.

(25 marks)

3. Assessment and guidelines for prescribing aerobic exercise in patients with Pacemakers, Heart failure and autonomic dysfunction.

(25 marks)

4A. Theories and models of Exercise Behavior.

4B. Behavior modification to improve exercise adherence.

(10+15 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

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

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Discuss the musculoskeletal impairments associated with pregnancy and its physiotherapy management.
(25 marks)
2. Classify incontinence and its physiotherapy management in post menopausal women.
(25 marks)
3. Discuss in detail principles and physiological basis of exercise prescription in PCOS.
(25 marks)
- 4A. Write in detail assessment and immediate post operative physiotherapy management of a 32 year old lady who has undergone a radical mastectomy. Add a note on home programme.
- 4B. Establishment of feeding and complications related to lactation.
(13+12 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

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

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

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

1. Explain in detail the role of spinal Proprioception in the management of patients with neck and back pain.
2. Explain in detail the VBI testing approach and its application in physical therapy practice.
3. Types of clinical reasoning and hypothesis testing.
4. **Write a short note on:**
 - 4A. Deep transverse friction massage
 - 4B. Movement diagram and its application
 - 4C. Nags and snags
 - 4D. Frette's laws



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

SUBJECT: PAPER - II: ELECTIVE: PAEDIATRICS

(SPECIALITY AREA: PAEDIATRICS)

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Discuss Bronchopulmonary Dysplasia and Chest physiotherapy in NICU. (25 marks)
2. Discuss in detail Sensory Integration Therapy. (25 marks)
3. Describe the types, clinical features and management of child with neural tube defects. Add a note on orthotic appliances. (25 marks)
- 4A. Explain the chest physiotherapy technique following congenital diaphragmatic hernia repair.
- 4B. Write on physiotherapy management for a 2 month old child with right sided torticollis neck. (12+13 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

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

(2013 REGULATION)

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Non invasive monitoring in ICU – discuss the principles of working, sensitivity and specificity of these measures.
(25 marks)
2. Physiologic effects of Mechanical ventilation on cardiopulmonary and renal system.
(25 marks)
3. Explain in detail the procedures to enhance lung expansion.
(25 marks)
4. Ambulating a patient on mechanical ventilation – Physiologic benefits, Assessment/precautions and procedure.
(25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – JUNE 2016

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

(2013 REGULATION)

Monday, June 06, 2016

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Classify occupational hazards. Discuss the role of physiotherapy in preventing the same.
(25 marks)
2. Explain the role of physiotherapist in job analysis and job placement. Add a note on employee fitness program.
(15+10 = 25 marks)
3. What is ergonomics? Explain the assessment and treatment principles of ergonomics in industrial workers of lifting section.
(5+10+10 = 25 marks)
4. **Short notes:**
 - 4A. Work hardening
 - 4B. Work station for special population
 - 4C. Legislation for workers rehabilitation
 - 4D. Engineering controls in the management of WRMSD
 - 4E. Principles of manual material handling

(25 marks)

