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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Monday, May 28, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. What are the principles of community based rehabilitation? Highlight gains and challenges when undertaking CBR.
2. Discuss falls in elderly under following headings:
 - 2A. Intrinsic causes
 - 2B. Outcome measures
3. Write on early intervention of high risk infants – need and evidence.
4. Discuss principles of ergonomic assessment.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

**SUBJECT: PAPER - I: SECTION "A": GENERAL IN ALL TOPICS IN
CARDIOPULMONARY SCIENCES**

(SPECIALITY AREA: CARDIO PULMONARY SCIENCES)

Monday, May 28, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Discuss in detail inspiratory muscle training in pulmonary rehabilitation.
2. Discuss different cardio pulmonary exercise testing protocols.
3. Explain the effects of mobilization on enhancing the efficiency of oxygen transport.
4. What are the major changes that occur in the cardio-pulmonary system with ageing and in response to exercise?



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Monday, May 28, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Enumerate various primitive reflexes. Explain the neuro physiology, assessment procedure and integration process for the same.
2. Discuss gross motor development in first year of life.
3. Describe the anatomy of pelvic floor and write the clinical importance of same in women's health practice.
4. Write in detail about physiology of puberty and menarche and explain the common health problems associated in this period.



MANIPAL UNIVERSITY**MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012****SUBJECT: PAPER – I: SECTION “A”: GENERAL IN ALL TOPICS IN
NEUROLOGICAL CONDITIONS
(SPECIALITY AREA: NEUROSCIENCES)**

Monday, May 28, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Describe the role of sensory system in motor control and motor learning.
2. Discuss the anatomy and physiology of neuromuscular junction (NMJ) and the electrophysiological studies used to diagnose disorders of NMJ.
3. Discuss the pathophysiology of spasticity and the physiotherapy management of the same.
4. **Write a short note on:**
 - 4A. Equilibrium reactions and its role in motor development
 - 4B. Evaluation of eighth cranial nerve
 - 4C. Use of AFO in hemiplegic gait
 - 4D. Proprioceptive inhibitory techniques
 - 4E. Electrical stimulation for dysphagia



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012
SUBJECT: PAPER - I: SECTION “A”: GENERAL IN ALL TOPICS IN ORTHOPAEDIC CONDITIONS
(SPECIALITY AREA: ORTHOPAEDICS)

Monday, May 28, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Discuss rehabilitation of a patient with spinal cord injury at C5-6 spinal segment level.
2. Define CRPS I and II. Discuss its assessment and physiotherapy management.
3. Discuss SLAP lesion and its post-operative rehabilitation.
4. **Write short note on:**
 - 4A. NAGS and SNAGS
 - 4B. Classify derangement syndromes of lumbar spine



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART-II DEGREE EXAMINATION – MAY/JUNE 2012
SUBJECT: PAPER - I: SECTION "B": RECENT ADVANCES IN CARDIOPULMONARY
SCIENCES

(SPECIALITY AREA: CARDIOPULMONARY SCIENCES)

Wednesday, May 30, 2012

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

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

1. Discuss the effects of exercise training in pulmonary arterial hypertension.
2. Discuss the effects of cardiac rehabilitation in chronic heart failure.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Wednesday, May 30, 2012

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

✍ Answer ALL questions.

✍ All questions carry equal marks.

1. Physiotherapy in prevention and management of ulcers in subjects with vascular diseases.
2. Dual task training as an exercise strategy for fall prevention.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Wednesday, May 30, 2012

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

✍ Answer ALL questions.

1. Strength training in cerebral palsy.

(25 marks)

2. Advances in the treatment of urinary incontinence.

(25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Wednesday, May 30, 2012

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

✍ Answer ALL questions.

✍ All questions carry equal marks.

1. Advances in objective assessment of static and dynamic postural control.
2. Advances in assessment of motor function in children with cerebral palsy.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Wednesday, May 30, 2012

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

✍ Answer ALL questions.

✍ All questions carry equal marks.

1. Non-operative physical therapy management of anterior shoulder instability.
2. Physical therapy management of rheumatoid hand.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012


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

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

 **Answer ALL questions.**

 **All questions carry equal marks.**

1. What are the acute and chronic adaptation of the cardiovascular, respiratory and thermoregulation system to exercise?
2. Describe the principles of exercise tolerance testing, the various parameter and methods assessing it.
3. Prescribe exercise prescription for 55 years old diabetic patient with history of chronic obstructive pulmonary disease.
4. Answer the following:
 - 4A. Exercise prescription for peripheral vascular disease.
 - 4B. Write briefly on the prevention and physiotherapy management of fatigue.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

Answer ALL questions.

1. Explain the issues and ideal design for small hand tools.
(25 marks)
2. Explain the components of pre-placement analysis of job for special population. Design an ideal workstation for 35 years old bus driver who is paraplegic.
(25 marks)
3. Classify and discuss various occupational hazards. Add a note on management of vibration and noise hazards.
(15+10 = 25 marks)
4. **Write short notes on:**
 - 4A. Occupational stress
 - 4B. Cognitive ergonomics
 - 4C. Anthropometry and ergonomics(5+10+10 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

☞ **Answer ALL questions. All questions carry equal marks.**

1. Discuss the role of early mobilization in intensive care units.
2. Write on the indications, contraindications, methods and application of noninvasive ventilation.
3. Explain in detail:
 - 3A. Effects of PEEP on different body systems.
 - 3B. Weaning criteria for Mechanical Ventilator.
4. Write on Universal precautions in ICU. Emphasize on sterile precautions to be taken during chest physiotherapy and suctioning.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Discuss the effect of exercise training in coronary artery bypass graft. (25 marks)
2. Discuss the exercise based cardiac rehabilitation in special population. (25 marks)
3. Discuss the outcomes measures in cardiopulmonary rehabilitation. (25 marks)
4. **Write short notes on:**
 - 4A. Cardiac medications and exercise
 - 4B. Discuss the airway clearance technique(10+15 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Discuss the complications following C6 complete traumatic spinal cord injury and physiotherapy management of any three complications.
2. Discuss the perceptual disorders in Cerebro-Vascular accidents and briefly mention the physiotherapy management of body image and schema disorders.
3. Essay on Gait in Parkinson's disease and physiotherapy management of the same.
4. Briefly discuss about various clinical variants of Gullian Barre syndrome and write in detail physiotherapy management of the same.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Design a School Based Physical Rehabilitation Program to Reduce Obesity among children in age range of 8-12 years.
2. Write an elaborative note on “High risk neonates and early intervention program”.
3. Write a detailed note about the relationship between physical growth, the level of activity and the development of motor skills in adolescence.
4. Genu Recurvatum: Discuss Mechanics of deformity development and its management.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ Answer ALL questions.

✍ All questions carry equal marks.

1. Explain the clinical features and physiotherapy treatment of pelvic inflammatory disease.
2. Clinical features and classification on carcinoma of cervix and write the management for the same in pre and post-surgical stages.
3. Fitness testing and exercise prescription in adolescent obesity.
4. Physiotherapy treatment of various musculoskeletal complications in child bearing year.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

1. Discuss spatial, temporal and physical theory of motor control. Write a short note on brainstem and midbrain reflexes.
(25 marks)
2. Discuss physiotherapy management for a three and half year old child with spastic diplegia who is unable to stand. Add a note on evaluation of activities of daily living and community ambulation.
(20+5 = 25 marks)
3. Discuss outcome measures for assessment of balance in children.
(25 marks)
4. **Write short notes on:**
 - 4A. Musculoskeletal issues in children with down's syndrome
 - 4B. Ankle foot orthosis
 - 4C. Outcome measures in obstetric brachial plexus injury
 - 4D. Principles and uses of vestibular ball in paediatric rehabilitation
 - 4E. Sensory integration therapy in gravitational insecurity
(5×5 = 25 marks)



MANIPAL UNIVERSITY**MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012****SUBJECT: PAPER – II: ELECTIVE – SPORTS REHABILITATION
(SPECIALITY AREA: ORTHOPAEDICS)**

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ Answer ALL questions.

1. Explain in detail about the preseason on-field assessment of a football team. (25 marks)
2. Write down the rehabilitation for a basketball player following ACL reconstruction. (25 marks)
3. Discuss the common injuries of hockey player. How it can be prevented? (25 marks)
4. **Discuss the following:**
 - 4A. Describe Krebs cycle
 - 4B. Discuss the adverse effects of anabolic steroids
 - 4C. Explain in detail Kubler-Ross grief model
 - 4D. Write a note on pathophysiology of overuse injury in sports
 - 4E. Enumerate on GIRD

(5×5 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION – MAY/JUNE 2012

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

Friday, June 01, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **All questions carry equal marks.**

1. Discuss patterns of “clinical instability of lumbar spine” and its management.
2. Explain the hypothesis categories in clinical reasoning.
3. Discuss the role of muscle energy techniques in segmental vertebral dysfunction.
4. Explain the McKenzie approach for cervical derangement syndromes.



MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) – PART-I DEGREE EXAMINATION – DECEMBER 2012

SUBJECT: RESEARCH METHODOLOGY

Monday, December 17, 2012

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 100

☞ **Answer ALL the questions.**

- 1A. List out the steps involved in testing of hypothesis.
- 1B. Enumerate the difference between parametric and non parametric tests of significance.
- 1C. In an animal experiment 40 guinea pigs was inoculated with a fixed dose of particular toxin causing liver enlargement. After a followup 15 out of 40 guinea pigs are found to have enlarged liver. Compute 95% confidence interval for proportion of guinea pigs having enlarged liver. (5+5+5 = 15 marks)

- 2A. Write a short note on descriptive epidemiology.
- 2B. The following table gives the results of neomycin prophylaxis in cross infection of burns during first 14 days.

Dressing with	Staphylococcal infection		Total
	Acquired	Not acquired	
Penicillin cream + neomycin	7	28	35
Penicillin cream alone	18	12	30
Total	25	40	65

Does the dressing significantly associated with Staphylococcal infection. Use appropriate test stating necessary assumptions? (Chisquare=3.84) (5+(8+2) = 15 marks)

- 3A. Explain different phases in the research process.
- 3B. Write a short note on logistic regression. (10+5 = 15 marks)

- 4. Discuss case control study under
 - 4A. Basic Design
 - 4B. Basic Steps
 - 4C. Basic features
 - 4D. Merits and Demerits(15 marks)

- 5. **Write a short note on:**
 - 5A. Sampling and non sampling errors
 - 5B. Validating diagnostic tests
 - 5C. Confidence Intervals and Standard Errors
 - 5D. Meta analysis
 - 5E. Correlation and its properties
 - 5F. Measurement Scales
 - 5G. Sample Size determination for estimating the mean of a single population
 - 5H. Stratified random sampling.(5×8 = 40 marks)



MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION-DECEMBER 2012

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

Monday, December 17, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

☞ **Answer ALL questions. All questions carry equal marks.**

1. Discuss the issues related to patient with spinal cord injury in the community. Add a note on management for the same.

(15+10 = 25 marks)

2. Discuss community based rehabilitation under following headings

2A. Principles

2B. Evaluation of CBR program

2C. Cultural and gender issues

(5+10+10 = 25 marks)

3. Explain the management of osteoporosis in community.

(25 marks)

4. What are the psychosocial aspects of rehabilitation? Add a note on ethical issues faced by physiotherapist in community during rehabilitation.

(15+10 = 25 marks)



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) – PART-I DEGREE EXAMINATION – DECEMBER 2012

SUBJECT: THEORETICAL BASIS & PRINCIPLES OF PRACTICE IN PHYSIOTHERAPY

Tuesday, December 18, 2012

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 100

✍ Answer ALL questions. All questions carry equal marks.

1. Explain the neurophysiology of human locomotion.
2. Explain the principles of physiotherapy management protocol in different stages of cancer.
3. Explain the clinical reasoning and decision making process involved in the physiotherapy management of pain.
4. Explain the role of physiotherapist in multidisciplinary team of community based rehabilitation.
5. Explain the systemic adaptations following exercise.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION–DECEMBER 2012

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

Tuesday, December 18, 2012

Time: 10:00 – 11:30 Hrs.

Max. Marks: 50

Answer ALL questions.

All questions carry equal marks.

1. Risk factors of occupational musculoskeletal disorders and potential solutions.
2. Role of Technology based devices on Living Environments for Older Adults.



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MANIPAL UNIVERSITY

MASTER OF PHYSIOTHERAPY (MPT) PART – II DEGREE EXAMINATION–DECEMBER 2012

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

Wednesday, December 19, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 100

Answer ALL questions.

1. Explain fall risk assessment in patients with dementia. Add a note on the fall prevention strategies for the same.

(15+10 = 25 marks)

2. Explain the changes in central and peripheral nervous system in elderly and add a note on its implication in rehabilitation.

(15+10 = 25 marks)

3. Explain the principles of exercise prescription for an osteoporotic older adult. Add a note on the issues involved in prescription of exercises in elderly.

(15+10 = 25 marks)

4. Short notes:

- 4A. Issues with institutionalization
4B. Assistive technology for dressing and eating
4C. Tests for predicting balance issues
4D. Fitness in older adults
4E. Psychosocial impact of urinary incontinence

(5×5 = 25 marks)

