# Rajiv Gandhi University of Health Sciences

**Master of Physiotherapy Part II Degree Examination – May 2013**

[Max. Marks: 100]

ne: 3 Hours]

## PHYSIOTHERAPEUTICS

## Q.P. CODE: 8114

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

**2 X 20 = 40 Marks**

**IG ESSAY**

Explain the influence of cardiopulmonary medications on the activity performance, in asthmatic patients.

Write down the utility of theories of motor control and motor learning in the management of stroke patients

**6 X 10 = 60 Marks**

**ORT ESSAY**

Compare and contrast pranayama with deep breathing exercises

List out the guidelines for cancer rehabilitation protocol

Write down the principles behind Brunnstorm approach

List out the therapeutic applications of short wave diathermy

Write a brief note on maitland's manipulation

Discuss about role of physiotherapy in the antenatal period

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# Rajiv Gandhi University of Health Sciences

**Master of Physiotherapy Degree Examination – May 2013**

[Time: 3 Hours] [Max. Marks:

**Paper – 1 – Principal of Physiotherapy Practice & Research Methodology Biostatistics**
**(RS & RS 2)**

## Q.P. CODE : 8111

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

**LONG ESSAY** **2 X 20 = 40 Ma**

1. What is sampling? What are methods of sampling? How to determine the size and design sampling.
2. Design a physiotherapy department for a 300 bedded multispecialty hospital including mon Machine and Manpower etc.

**SHORT ESSAY** **6 X 10 = 60 Ma**

3. Processing and analysis of data in research
4. Analysis of Variance and Co – variance.
5. Malpractice.
6. Principle to follow in history taking
7. Types of validity
8. Problems encountered by the researcher.

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# Rajiv Gandhi University of Health Sciences

**Master of Physiotherapy Part II Degree Examination – May 2013**

[Max. Marks: 100]

## MUSCULOSKELETAL DISORDER AND SPORTS

## Q.P. CODE: 8115

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

**IG ESSAY**

**2 X 20 = 40 Marks**

What are the possible causes for abnormal mal tracking of patella? Explain the surgical procedures done for the same and its post operative management

Determine the efficacy of Neuromuscular electrical stimulation (NMES) in quadriceps muscle strength and activation in women with mild and moderate knee osteoarthritis – recent advance

**RT ESSAY**

**6 X 10 = 60 Marks**

Evaluation of contractile and inert tissues as proposed by James Cyriax

Classification of total knee arthroplasty. Post operative rehabilitation protocol following cemented procedure

Role of strength training and weight bearing exercises for prevention of falls in geriatric population

Explain plyometrics, its mechanical and neurophysiologic characteristics, criteria for implementing and guidelines for safe training

Describe the biomechanical link between hyerpronated foot and low back pain. Add a note on the screening methods for hyperpronated foot

Use of different orthotic devices for various foot disorders

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# Rajiv Gandhi University of Health Sciences

**Master of Physiotherapy Degree Examination – May 2013**

[Time: 3 Hours] [Max. Marks: 100]

**Paper – II – Biomechanics, Exercise Physiology & Electrophysiology (RS & RS 2)**

## Q.P. CODE : 8112

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

**LONG ESSAY** **2 X 20 = 40 Marks**

1. Outline the various electrophysiological tests used. Explain each one giving their importance, merits and demerits based on evidence.
2. What is body composition Analysis? Describe the various methods used in practice.

**SHORT ESSAY** **6 X 10 = 60 Marks**

3. Explain the biomechanical factors that influence respiration.
4. Describe any one test used in fatigue assessment in detail.
5. Write a note on Recruitment patterns.
6. Describe any one Somato – sensory Evoked potential testing and it significance.
7. Give the Kinematics of gait using a diagram to explain
8. Electrical properties of a nerve.

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# Rajiv Gandhi University of Health Sciences

**Master of Physiotherapy Degree Examination – May 2013**

[Time: 3 Hours] [Max. Marks: 100]

## Paper – III – Physical & Functional Diagnosis (RS & RS 2)

## Q.P. CODE: 8113

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

**LONG ESSAY** **2 X 20 = 40 Marks**

1. Explain each of the following terms. Identify at least two co – ordination tests that would be appropriate for assessing each deficit. Explain the testing protocol you would use for each
   (a) Dysdiadochokinesia (b) Dysmetria (c) Tremor (d) Rigidity (e) Bradykinesia
2. Identify the purpose and components of a motor control assessment.

**SHORT ESSAY** **6 X 10 = 60 Marks**

3. Outline the generic steps of musculoskeletal examination process.
4. Describe and analyse in a sagittal plane the common gait deviations of ankle and foot during the stance phase and mention the possible causes.
5. Explain the components of muscular fitness. Describe the methods of assessing the same
6. Describe the Tonic / Brainstem reflexes, the stimulus and response.
7. Describe the Katz Index of Activities of Daily Living
8. Describe the specific purposes for assessing pulmonary function. What are the principles of measurement?

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# Rajiv Gandhi University of Health Sciences

**Master of Physiotherapy Part II Degree Examination – May 2013**

[Time: 3 Hours] [Max. Marks: 100]

## CARDIO RESPIRATORY DISORDERS

## Q.P. CODE: 8117

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

**LONG ESSAY** **2 X 20 = 40 Marks**

1. Discuss exercise testing under indications, equipments, protocols, contraindications, safety, termination criteria, interpretation of results and prognostic value
2. Recent advances on hyperinflation using pressure support ventilation

**SHORT ESSAY** **6 X 10 = 60 Marks**

3. Define drowning and near drowning? Enumerate the risk factors. What are the factors contributing to respiratory insufficiency in near drowning? Briefly describe the physiotherapy management
4. What is the sequence of pulmonary rehabilitation? Describe the physiotherapy components in pulmonary rehabilitation
5. What are the reasons for admission of neonate to a NICU? What are the problems of preterm and low birth weight infants? Briefly explain the role of physiotherapist who may be called to treat infants in NICU
6. Outline the stratification for risk of events and recommendations for ECG monitoring and exercise prescription
7. Physiotherapy modalities for wound healing
8. Special tests in the assessment of PVD

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# Rajiv Gandhi University of Health Sciences

**Master of Physiotherapy part II Degree Examination – May 2013**

[Time: 3 Hours] [Max. Marks: 10

## Neurological and Psychosomatic Disorders

## Q.P. CODE: 8116

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary. Answer all questions

**LONG ESSAY** **2 X 20 = 40 Mark**

1. Describe the blood supply of brain in detail. Explain in detail the assessment and rehabilitation of upper limb of a left MCA territory stroke patient based on the MOTOR RELEARNING PROGRAM approach
2. Mention the recent advances in early rehabilitation for cervical spinal cord injury

**SHORT ESSAY** **6 X 10 = 60 Marks**

3. Write about Locomotor training in parkinson's disease
4. Biofeedback in neurological rehabilitation
5. Mention the principle & rationale of coma stimulation
6. What are the causes of brachial plexus injury? Brief about physiotherapy management for the brachial plexus injury in a 1 year old child
7. Write about causes of pressure sores, describe the physiotherapy management of pressure sores
8. Describe the rationale of using body weight treadmill training for a spinal cord injured subject.

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