# Rajiv Gandhi University of Health Sciences, Karnataka
# Master of Physiotherapy Degree Examination - 28-May-2024

**Principles of Physiotherapy Practice, Research Methodology and Biostatistics, Exercise Physiology, electrophysiology**
**Q.P. CODE: 8121**
**principle of physiotherapy practice Research Methodology and biostatistics exercise physiology elec**
**[8121]**
Marks: 100 Duration: 200 mins.

1 Explain Randomized control design with an example. (10)

2 Compare and contrast Case study and Case series. (10)

3 Elaborate Regression analysis. (10)

Or

VAS and its Psychometric properties

4 Explain Qualitative study designs. (10)

5 What are the Sources of Energy? (10)

6 Treatment planning and organization. (10)

7 Electrical stimulation and its effect in muscular system. (10)

8 Evaluating published research. (10)

Or

Biomechanics of Posture

9 Electrical properties of nerve. (10)

10 Discuss Caloric balance. (10)

Rajiv Gandhi University of Health Sciences, Karnataka
Master of Physiotherapy Degree Examination - 30MAY2024
**PHYSICAL AND FUNCTIONAL DIAGNOSIS**
**Q.P. CODE: 8122**
**Physical and functional diagnosis [8122]**
**Marks: 100 Duration: 200 mins.**
**PHYSICAL AND FUNCTIONAL DIAGNOSIS**
**Answer all the questions.**
Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary **.Answer All The Questions**

1 Assessment for prescription of aids and appliances in diplegiacerebral palsy (10)

2 Explain anthropometric measurements and its importance inassessment (10)

3 Explain Berg balance scale in detail with its psychometricproperties (10)

4 Explain the pulmonary function test and its importance inassessment (10)

5 Prosthetic evaluation in above knee amputation (10)

6 Explain the use of biofeedback in assessment with any two examples (10)

7 Describe various methods of balance assessment used in elderlypopulation (10)

8 Describe the various methods of early screening to identifydevelopmental delay (10)

9 Strength duration curve uses merits and demerits (10)

10 Explain about various findings in nerve conduction studies inbrachial plexus injury (10)

**Rajiv Gandhi University of Health Sciences, Karnataka**
**Second Year Master of Physiotherapy Degree Examination - 28-May-2024**
**Fundamentals in Physiotherapy Practice, Pedagogy & Research**
**Paper -I (RS-4)**
## Q.P. CODE: 8129
**Fundamentals in Physiotherpy Practice Pedagogy and Research paper 1 [8129]**
**Marks: 100 Duration: 200 mins.**
**Fundamentals in Physiotherapy Practice Pedagogy Re**
**Answer all the questions.**
Your answers should be specific to the questions asked.

1 Discuss the role of history taking inphysiotherapy assessment. (10)

2 Instrumental techniques. (10)

OR

Ethical Issues in Physiotherapy

3 Musculoskeletal adaptations to exercise and training. (10)

4 Muscle plasticity in response to electrical stimulation. (10)

5 Define probability and normal distribution. (10)

6 Instrumentation of NMES. (10)

7 Testing of hypothesis. (10)

8 Psychometric properties of SPADI. (10)

9 Blooms Taxonomy. (10)

**10 Different methods used in strengthtraining. (10)**

Rajiv Gandhi University of Health Sciences, Karnataka
Second Year Master of Physiotherapy Degree Examination - 30-MAY-2024
**Fundamental Principles of Musculoskeletal Physiotherapy**
**Paper II (RS-4)**
**Q.P. CODE: 8130**
**Fundamentals principles of musculoskeletal physiotherapy apper -II [8130]**
**Marks: 100 Duration: 200 mins.**
**Fundamental Principles of Musculoskeletal Physioth**
**Answer all the questions.**
Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.
**Answer All The Questions**

1 Describe the factors affecting mobility during aging (10)

2 Describe role of fascia in Musculoskeletal system (10)

3 Elaborate on the Kinetic and Kinematics of shoulder followingrotator cuff repair (10)

4 Describe the various physiological adaptations seen in musclesduring endurance training (10)

5 Describe changes in the mechanical elbow of following 50° of fixed flexion deformity of the elbow (10)

6 Describe the various changes seen in forward head posture on thebody (10)

7 Role of equilibrium following ankle injuries (10)

8 A 50 year old man is unable to dorsiflex his right foot followingan intramuscular injection at his right gluteus region. Describehis pathological gait (10)

9 Describe the changes in male and female body structure andcomposition (10)

10 Describe the effects of thermal agents on soft tissue repair (10)

Rajiv Gandhi University of Health Sciences, Karnataka
Second Year Master of Physiotherapy Degree Examination - 30-MAY-2024
**Basic Medical Sciences for Sports Physiotherapy - Paper II (RS-4)**
**Q.P. CODE: 8133**
**Basic Medical science for sports physiotherapy PAPER II [8133]**
**Marks: 100 Duration: 200 mins.**
**Basic Medical Sciences for Sports Physiotherapy**
**Answer all the questions.**
Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.
**Answer All The Questions**

1 Compare and contrast the patho-mechanics of healing of bone andligaments. (10)

2 Describe the growth and maturation of muscular system. Add a noteon the physiology of muscular growth during adolescence. (10)

3 Explain the various methods of psychological training incorporatedin professional athletes. (10)

4 Explain the neuro physiology of coordination of body segmentsduring human motion. (10)

5 Describe the applications of Motor Learning principles to improvetarget accuracy in basketball shooting. (10)

6 Compare and contrast the strength and endurance training using FITTprinciple. (10)

7 What is COPD? How does this affect the physiology and performanceof athletes? (10)

8 Classify banned drugs in sport. List the benefits and adverseeffects of doping. (10)

9 Classify body composition in sports categories. Discuss the meritsand demerits of different body types. (10)

10 Define and classify pain with suitable examples. (10)

Rajiv Gandhi University of Health Sciences, Karnataka
Second Year Master of Physiotherapy Degree Examination - 30-MAY-2024
**Basics of Cardiovascular and Pulmonary Sciences - Paper-II (RS-4)**
**Q.P. CODE: 8136**
**Basic of cardiovascular and pulmonary science paper II [8136]**
**Marks: 100 Duration: 200 mins.**
**Basics of Cardiovascular and Pulmonary Sciences**
**Answer all the questions.**
Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

1 Discuss briefly the usefulness and limitations of modern paintheories in explaining the clinical variance

of patients withchronic pain. (10)

2 Describe chronic adaptations of aerobic exercises on cardiovascularsystem. (10)

3 Differentiate the adaptation of the cardiovascular system inchildren and adults as a response to training for strength,endurance and flexibility. (10)

4 Describe the role of genetic predisposition on physical activity. (10)

5 How does a physical therapist identify the presence and severity ofcardiac muscle dysfunction? (10)

6 Summarize the cardiopulmonary development approximate togestational age. (10)

7 What are the strategies for weight control? Describe the role ofexercise in weight control. (10)

8 Explain Anaerobic metabolism. (10)

9 Explain Ventilation-Perfusion ratio. Enumerate the factorscontributing to V/Q mismatch. (10)

10 Enumerate the advantages and disadvantages of the aerobic system. (10)

Rajiv Gandhi University of Health Sciences, Karnataka
**Second Year Master of Physiotherapy Degree Examination - 30-MAY-2024**
**Basic Sciences for Neurological Physiotherapy - Paper -II (RS-4)**
**Q.P. CODE: 8142**

**Marks: 100 Duration: 200 mins.**
**Basic Sciences for Neurological Physiotherapy**
**Answer all the questions.**
Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.
**Answer All The Questions**

1 How would reason the statement "ontogeny recapitulates phylogeny"? (10)

2 Describe cognitive development and its implications on socialmilestones. (10)

3 List factors influencing exercise compliance. Outline measures thatmay be adopted to optimize exercise health behaviour with suitableexamples. (10)

4 What are the advantages of understanding motor learning from amotor task perspective? (10)

5 Explain pathophysiological changes in CNS followinghyperbilirubinemia that lead to non-progressive neurologicaldisorders. (10)

6 Critically appraise systems theory with emphasis on its limitationsin explaining motor control. (10)

7 Outline applied neurophysiology of basal ganglia. (10)

8 What is cortical reorganization theory? Add a note on geneticinfluensors for neural plasticity. (10)

9 Explain the effect of Neuro-pharmacology on exercise. (10)

10 Describe importance of understanding health behaviours. (10)

Rajiv Gandhi University of Health Sciences, Karnataka
Second Year Master of Physiotherapy Degree Examination - 30-MAY-2024
**Applied Theories, Philosophies and Global Perspective for Physiotherapy in Community Health - Paper -II (RS-4)**
**Q.P. CODE: 8145**
**Applied theories philosophy and Global perspective for physiotherapy in community health paper-II [8145]**
**Marks: 100 Duration: 200 mins.**
**Paper II**
**Answer all the questions.**
Your answers should be specific to the questions asked.
**Draw neat, labeled diagrams wherever necessary**
**Answer All The Questions**

1 Describe various models of rehabilitation. (10)

2 Describe the concept of Universal Design and its fundamentalprinciples? (10)

3 How does muscle atrophy with age affect physical strength,mobility, and functional independence? (10)

4 Describe health care delivery system in India. (10)

5 How can technological advancements help older adults cope withphysiological changes and enhance their
quality of life? (10)

6 Discuss how anthropometric measurements contribute to ergonomicdesign and workplace adjustments. (10)

7 What does the term health professionals' behavior refer to in thecontext of healthcare? (10)

8 Explain sustainable development goals in health promotion. (10)

9 Enlist advantages & disadvantages of Telehealth. (10)

10 Analyze how behavioural economics principles can be used to designinterventions that encourage people
to make healthier choices intheir daily lives (10)

# Rajiv Gandhi University of Health Sciences, Karnataka
# Master of Physiotherapy Degree Examination - 03JUN24

**PHYSIOTHERAPEUTICS**
**Q.P. CODE: 8123**
**Physio therapeutics [8123]**
**Marks: 100 Duration: 200 mins.**
**PHYSIOTHERAPEUTICS**
**Answer all the questions.**
Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary
**Answer All The Questions**

1 Define biofeedback. Explain EMG biofeedback used in rehabilitation (10)

2 Exercise testing and prescription for geriatric population (10)

3 Explain central modulation of pain and its application inphysiotherapy management (10)

4 Define motor learning and compare the theories of motor learningand its application in neurorehabilitation (10)

5 Classify burns. Detail out a plan of rehabilitative care for a30-year-old male with 25% burns (10)

6 Elaborate on rehabilitation protocol for an athlete following ACLreconstruction surgery (10)

7 Explain types of neurogenic bladder. Discuss the methods ofrehabilitation for management of incontinence (10)

8 Plan the exercise prescription and follow-up strategies forAnkylosing Spondylitis (10)

9 Explain physiotherapy care in post-natal phase (10)

10 Discuss the plan of management for a 5-year-old child with spasticdiplegia (10)

# Rajiv Gandhi University of Health Sciences, Karnataka
# Master of Physiotherapy Degree Examination - 05JUN2024

**MUSCULOSKELETAL DISORDERS AND SPORTS**
**Q.P. CODE: 8124**
**Musculoskelental Disorders and Sports [8124]**
**Marks: 100 Duration: 200 mins.**
**MUSCULOSKELETAL DISORDERS AND SPORTS**
**Answer all the questions.**
**Your answers should be specific to the questions asked.**
**Draw neat, labeled diagrams wherever necessary.**
**Answer All The Questions**

1 Explain in detail cardio respiratory fitness test (10)

2 Role of pilates in upper quadrant syndrome (10)

3 Describe myofascial release technique (10)

4 Explain various prosthesis used in THR and describe its management (10)

5 Overuse injuries in racquet sports players (10)

6 Effect of aging on musculoskeletal system (10)

7 Describe recent advances in management of ankle sprain (10)

8 Enumerate the benefits of sports psychological training (10)

9 Mechanism of pain relief by manual therapy (10)

10 Role of physiotherapist of disability screening within thecommunity (10)

# Rajiv Gandhi University of Health Sciences, Karnataka
# Master of Physiotherapy Degree Examination - 05JUN24

**NEUROLOGICAL AND PSYCHOSOMATIC DISORDERS**
**Q.P. CODE: 8125**
**Neutrological and psychosomatic Disorder [8125]**

**Marks: 100 Duration: 200 mins.**
**NEUROLOGICAL AND PSYCHOSOMATIC DISORDERS**
**Answer all the questions.**
**Your answers should be specific to the questions asked.**
**Draw neat, labeled diagrams wherever necessary.**
**Answer All The Questions**

1 Write a note on Oromotor Training. (10)

2 Discuss various perceptual disorders with respect to their clinicalpresentation and their clinical evaluation. (10)

3 Explain the principles of Neuronal Plasticity and its implicationin rehabilitation. (10)

4 Explain the physiotherapeutic management for a patient diagnosedwith Cerebellar ataxia. (10)

5 Explain the concept and theories for Motor learning. (10)

6 Explain the Mental imagery practice and its evidence for use inNeuro-rehabilitation. (10)

7 Explain Hemiplegic shoulder pain with respect to itspatho-mechanics and physiotherapy management methods. (10)

8 Explain the concept and application of Constrain Induced MovementTherapy (CIMT) for hemiplegic upper extremity. (10)

9 Role of vestibular system in balance. (10)

10 Recent advance on postural correction in Parkinson's disease. (10)

# Rajiv Gandhi University of Health Sciences, Karnataka
# Master of Physiotherapy Degree Examination - 05JUN2024

**PAEDIATRIC**
**Q.P. CODE: 8128**
**Pediatrics [8128]**
**Marks: 100 Duration: 200 mins.**
**PAEDIATRIC**
**Answer all the questions.**
**Your answers should be specific to the questions asked.**
**Draw neat, labeled diagrams wherever necessary.**
**Answer All The Questions**

1 Describe exercise prescription for a 4-year-old boy with spasticdiplegic cerebral palsy (10)

2 Explain importance of genetic counselling in paediatric geneticdisorders (10)

3 Enlist disorders of perception and describe role of physiotherapyfor the same (10)

4 Describe cardio respiratory physiotherapy assessment of neonate inneonatal intensive care unit (10)

5 Describe role of physiotherapy in schools (10)

6 Describe importance of fitness training in pediatric population (10)

7 Describe role of physiotherapist in prescribing orthosis and use oforthosis in management for congenital locomotor disorders (10)

8 Describe the role of physiotherapist in early intervention of high-risk babies (10)

9 Describe Fitt's and Posner's motor learning theory and itsimportance in physiotherapy (10)

10 Describe normal development from birth to two years of life (10)

# Rajiv Gandhi University of Health Sciences, Karnataka
# Second Year Master of Physiotherapy Degree Examination - 03JUN2024

**Physical and Functional Diagnosis in Musculoskeletal Disorders**
**Paper III (RS-4)**
**Q.P. CODE: 8131**
**Physical and functional diognosis in musculoskeletal disordets paper III [8131]**
**Marks: 100 Duration: 200 mins.**
**Physical and Functional Diagnosis in Musculoskelet**

**Answer all the questions.**
**Your answers should be specific to the questions asked.**
**Draw neat, labeled diagrams wherever necessary.**
**Answer All The Questions**

1 Describe the various special tests used for pain around the elbow (10)

2 Describe the various steps involved in the decision making processin Physiotherapy (10)

3 Write in detail about the postoperative management following bothbone fracture of upper limb (10)

4 Write in detail about various investigations used for spinal cordinjuries (10)

5 Describe screening of the knee following Posterior CruciateLigament injury. (10)

6 Describe in detail the assessment following Symes amputation (10)

7 Describe the role of demographic data and history taking inassessment. (10)

8 Describe various outcome measures used for knee pain (10)

9 Describe screening of ankle following ankle subluxation. (10)

10 Write in detail clinical reasoning in manual therapy (10)

Rajiv Gandhi University of Health Sciences, Karnataka
Second Year Master of Physiotherapy Degree Examination - 05JUN24
**Physiotherapy Interventions in Musculoskeletal Disorders**
**Paper IV (RS-4)**
**Q.P. CODE: 8132**
**PHYSIOTHERPY INTERVENTIONAL IN MUSCULOSKELETAL DISORDERS PAPER- IV [8132]**
**Marks: 100 Duration: 200 mins.**
**Physiotherapy Interventions in Musculoskeletal Dis**
**Answer all the questions.**
**Q.P. CODE: 8132**
**Your answers should be specific to the questions asked.**
**Draw neat, labeled diagrams wherever necessary.**
**Answer All The Questions**

1 What is the importance of functional training in individuals withTHR. (10)

2 What are the recent advances in electrotherapy management of aboveknee amputation? (10)

3 Describe the physiotherapy interventions incorrection of posture in scoliosis. (10)

4 Write the principles and concept of McKenzietechnique. (10)

5 Write down the role of physiotherapy in management of gleno humeraldysfunction in swimmers. (10)

6 Explain the role of assistive devices in workplace. (10)

7 What are the tendon transfer techniques formedian nerve injury. Add a note on Physiotherapy management. (10)

8 Role of Myofascial release in Trapezitis. (10)

9 How do you manage pain in fracture cases basedon educational and behavioral strategies? (10)

10 Explain the physiotherapy intervention forimproving endurance in individuals with sedentary lifestyle. (10)

Rajiv Gandhi University of Health Sciences, Karnataka
Second Year Master of Physiotherapy Degree Examination - 03JUN2024
**Sports Assessment, Injury Evaluation (Sports Traumatology) and Exercise Physiology - Paper III (RS-4)**
**Q.P. CODE: 8134**

**sports assessement injury evaluation SPORTS TRAUMATOLOGY and rxerise physilogy paper III [8134]**
**Marks: 100 Duration: 200 mins.**
**Paper III**
**Answer all the questions.**
Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.
**Answer All The Questions**

1 List and discuss the return to sport criteria after ACLreconstruction in a football athlete. (10)

2 List the diagnostic imaging techniques used in evaluation of softtissue injuries. Discuss one cost effective method to evaluatemusculo-tendon abnormalities. (10)

3 List the methods to evaluate flexibility of lower limb and spine inathletes. Explain the clinical reasoning in evaluating tightness ofhamstrings with suitable examples. (10)

4 List the field test to assess the fitness of an athlete. Describethe agility T-test and its importance. (10)

5 Explain the criteria to progress to participation in volleyballgame after surgical repair of Bankart lesion of shoulder. (10)

6 Describe the Functional Movement Screening (FMS) evaluation methodsand add a note on its reliability and validity. (10)

7 Explain the on-field evaluation protocol of an athlete who hassustained concussion. (10)

8 Define strength. Explain the objective measurement of strengthusing various methods in sports. (10)

9 Explain the Importance of gait evaluation in sports. List andexplain the methods of evaluation. (10)

10 A cricket bowler diagnosed as supraspinatus muscle injurypresents with pain and decreased function, visits sportsphysiotherapy for evaluation. On observation he presents withprotracted shoulder.

a).List the possible causes for the pain and dysfunction

b). Derive a sports specific evaluation with clinical reasoningand justifications for each of the hypothesis

Rajiv Gandhi University of Health Sciences, Karnataka
Second Year Master of Physiotherapy Degree Examination - 05JUN2024
**Sports Injuries, Prevention, Management and Rehabilitation - Paper IV (RS-4)**
**Q.P. CODE: 8135**
**Sports injurise prevention management and rehabilitation paper IV [8135]**
**Marks: 100 Duration: 200 mins.**
**Paper IV**
**Answer all the questions.**
**Your answers should be specific to the questions asked.**
**Draw neat, labeled diagrams wherever necessary.**
**Answer All The Questions**

1 Why is promoting sports and fitness considered important for theoverall well-being of children, and what are two key benefits thatregular physical activity can provide to optimal peadiatric health. (10)

2 Outline the importance of warm-up and cool-down routines as aprinciple for preventing sports injuries. (10)

3 Evaluate the role of advanced physiotherapy intervention techniquesin addressing anterior cruciate ligament (ACL) injuries amongsoccer players. Assess the evidence-based effectiveness of thesetechniques. (10)

4 What is the significance of ergonomics in the context of sports? (10)

5 During a university sports event, a soccer player suddenlycollapses on the field and is unresponsive. Outline the immediatesteps that a sports physiotherapist should follow to manage thisemergency situation. (10)

6 Explain a gymnast's recovery after a wrist fracture. Explain theguidelines and protocols designed for their return to gymnastics. (10)

7 Examine the unique challenges in crafting sports injury preventionand management strategies for the elderly. (10)

8 Analyze the post-shin splint recovery of a runner, consideringguidelines and protocols for a secure return to sports afterconservative management. (10)

9 Analyze the common injuries seen in professional soccer players.Explain the mechanism of injuries,

prevention strategies, andphysiotherapy management. (10)

10 Elucidate the injury mechanisms and preventive measures on injuriesin volley ball player. Provide a comprehensive overview of the roleof sports physiotherapy in injury prevention. (10)

Rajiv Gandhi University of Health Sciences, Karnataka

Second Year Master of Physiotherapy Degree Examination - 03JUN2024

**Physical Assessment and Functional Diagnosis of Cardiovascular and Pulmonary Sciences - Paper-III (RS-4)**

**Q.P. CODE: 8137**

**Physicsl assessement and functional dignosis of cardiovascular and pulmonary science paper III [8137]**

**Marks: 100 Duration: 200 mins.**

**Physical Assessment and Functional Diagnosis of Ca**

**Answer all the questions.**

Your answers should be specific to the questions asked.

**Draw neat, labeled diagrams wherever necessary**

**Answer All The Questions**

1 Create a simple diagram to illustrate the normal progression ofwound healing using the three phases of wound healing as a guide. (10)

2 What is exercise stress testing? What are the ECG patterns inresponse to testing and its significance in different cardiacconditions? (10)

3 Elaborate the importance and methods of vital sign assessment in anOPD setting. What are the factors that can influence each vitalsign? What are the normal vitals and values among various agegroups? (10)

4 Describe the importance and components of Neurological monitoringin ICU. (10)

5 Describe the systematic approach to analyze chest x-rays. (10)

6 Explain the complications of ANS dysfunction. Add a note on themethods of testing. (10)

7 Describe in detail three pain questionnaires. (10)

8 Explain the role of body composition analysis and write a note onanthropometric measurements. (10)

9 Discuss the components of physical examination of the normalrespiratory system. (10)

10 Discuss the process of POMR. (10)

Rajiv Gandhi University of Health Sciences, Karnataka

Second Year Master of Physiotherapy Degree Examination - 05JUN24

**Physiotherapy Interventions in Cardio-Vascular and Pulmonary Sciences Paper-IV (RS-4)**

**Q.P. CODE: 8138**

**Physiotherapy intervention in cardiovascular and pulmonary scoience paper IV [8138]**

**Marks: 100 Duration: 200 mins.**

**Paper IV**

**Answer all the questions.**

**Your answers should be specific to the questions asked.**

**Draw neat, labeled diagrams wherever necessary.**

**Answer All The Questions**

1 Describe the management of burn care with a note on appropriateexercises. (10)

2 Explain the physiological basis of Incentive Spirometry. What arethe indications, contraindications, hazards and complications? Adda note on different types of Incentive spirometer. (10)

3 Enumerate the detailed exercise training considerations andexercise protocol for CKD. (10)

4 Explain the principles and techniques of postural drainage inpediatric population. (10)

5 Explain Pharmacodynamics and Pharmacokinematics. (10)

6 Elaborate the principles of neurophysiological facilitation ofrespiration. (10)

7 Discuss Hyperbaric Techniques. List out their indications andcontraindications. (10)

8 Discuss the risk factors and primary prevention in hypertension. (10)

9 What is endotracheal suctioning? Describe the procedure ofendotracheal suctioning including patient preparation, suctioningevent(s) and follow up care. (10)

10 Explain breathing control techniques. (10)

## RAJIV GANDHI UNIVERSITY OF HEALTH SCIENCES

Second Year Master of Physiotherapy Degree Examination - 03JUN2024

**Physical and Functional Diagnosis in Paediatrics - Paper-III (RS-4)**

**Q.P. CODE: 8140**

**Physical and functional diognosis in pediatrics paper III [8140]**

**Marks: 100 Duration: 200 mins.**

**Paper III**

**Answer all the questions.**

**Your answers should be specific to the questions asked.**

**Draw neat, labeled diagrams wherever necessary.**

1 Describe the evaluation of balance and coordination in a 2 year oldchild diagnosed with Down syndrome. (10)

2 Discuss about genetic testing in details. (10)

3 Describe various growth disorder and explain in detail about growthassessment. (10)

4 Define high risk infants. Explain the assessment of the same. (10)

5 Assessment of down's syndrome in 2 year old child. (10)

Or

How do the GMFS and GMFM help assess physical function and diagnose developmental challenges in pediatric physiotherapy?

6 Describe the assessment of Cerebral Palsy using standardised tool.Mention psychometric properties for the same. (10)

7 What is meant by Sensory Processing disorder? Explain any two indetail. (10)

8 Mention different behavioural disorders and their evaluation indetail. (10)

9 Enumerate perceptual disorders and explain the assessment of anytwo perceptual disorders in detail. (10)

10 Mention 4 outcome measures for pain assessment for a child on thespectrum. (10)

Rajiv Gandhi University of Health Sciences, Karnataka

Second Year Master of Physiotherapy Degree Examination - 05JUN2024

**Physiotherapy/ Physiotherapeutics in Paediatrics - Paper-IV (RS-4)**

**Q.P. CODE: 8141**

**Pediatrics physitherapy-physiotherapeutics in paediatrics paper IV [8141]**

**Marks: 100 Duration: 200 mins.**

**Paper IV**

**Answer all the questions.**
**Your answers should be specific to the questions asked.**
**Draw neat, labeled diagrams wherever necessary.**
**Answer All The Questions**

1 Discuss physiotherapy management for Attention DeficitHyperactivity Disorder. (10)

2 Explain virtual rehabilitation in autism. (10)

3 Identify the role of physiotherapy in integrated and specialschools. (10)

4 Propose management in pediatric respiratory failure using modernmodalities. (10)

5 Discuss early intervention in Hydrocephalus. (10)

6 Plan physiotherapy management in pediatric bone marrow cancer. (10)

7 Compile a note on current trends in PT practices for children withDown's Syndrome. (10)

8 Discuss physiotherapy management for metabolic disorders. (10)

9 Explain role of physiotherapist in Oro motor dysfunction in NICU. (10)

10 Formulate exercise prescription for 12-year boy with Charcot MarieTooth disease. (10)

Rajiv Gandhi University of Health Sciences, Karnataka

**Neurophysiotherapy Assessment - Paper -III (RS-4)**

**Q.P. CODE: 8143**

Second Year Master of Physiotherapy Degree Examination - 03JUN24

**Neuro Physiotherapy Treatment Paper-IV [8143]**

**Marks: 100 Duration: 200 mins.**

**Neurophysiotherapy Assessment Paper III**

**Answer all the questions.**

**Your answers should be specific to the questions asked.**

**Draw neat, labeled diagrams wherever necessary.**

**Answer All The Questions**

1 Explain the methods of grasp assessment in radial nerve palsy. (10)

2 Explain motor control and motor behaviour assessment of PostureControl. (10)

3 How do you assess of cerebral cortical dysfunction in TraumaticBrain Injury. (10)

4 Write about Functional outcome measures of ADL. (10)

5 What is muscle biopsy and its role in diagnosing Muscle disorder? (10)

6 Explain the assessment of tonal abnormalities seen in Ataxia. (10)

7 Describe the assessment of Environmental barriers and facilitatorsfor gait in Stroke. (10)

8 Explain the assessment of motor function using various assessmenttools. (10)

9 What are the changes seen in NCS in Peripheral Nerve Injury. (10)

10 Explain the evaluation of activity limitation and participationrestriction in patients with Parkinson's Disease. (10)

Rajiv Gandhi University of Health Sciences, Karnataka

Second Year Master of Physiotherapy Degree Examination - 05JUN2024

**Neurophysiotherapy Treatment - Paper -IV (RS-4)**

**Q.P. CODE: 8144**

**Fundamentals in physiotherapy practice pedagogy and research paper-I [8144]**

**Marks: 100 Duration: 200 mins.**

**Paper IV**

**Answer all the questions.**

**Your answers should be specific to the questions asked.**

**Draw neat, labeled diagrams wherever necessary.**

**Answer All The Questions**

1 What is Brain Computer Interface? Write about Brain ComputerInterface training in Head Injury (10)

2 Write about Home environmental remodelling advise for 37-year-oldmale with C5 level Spinal cord injury. (10)

3 Describe the principles Neuroplasticity and its application inNeuro rehabilitation. (10)

4 Explain the Cardiopulmonary Care in Intensive care unit on27-year-old male in acute stage of Transverse Myelitis (10)

5 **Explain about functional strength training in GB syndrome. Add a note on recent evidences.** (10)

6 Write about Functional Electrical Stimulation on hemiparesis. (10)

7 Explain about retraining for Parkinson's disease patient post DeepBrain Stimulation. (10)

8 Write about management of Fall risks in vestibular disorder. (10)

9 Explain the role of assistive devices in exercise prescription,training and prevention of deconditioning in Common peroneal nervePalsy. (10)

10 Describe Action Observation Training and explain its application inCerebro Vascular Accidents. (10)

Rajiv Gandhi University of Health Sciences, Karnataka

Second Year Master of Physiotherapy Degree Examination - 03JUN2024

**Assessment Framework for Physiotherapy Service Provisions in Community Health - Paper -III (RS-4)**

**Q.P. CODE: 8146**

**Assessment framework for physiotherapy service provisions in community health paper-III [8146]**

**Marks: 100 Duration: 200 mins.**

**Paper III**

**Answer all the questions.**

**Your answers should be specific to the questions asked.**

**Draw neat, labeled diagrams wherever necessary.**

**Answer All The Questions**

1 What are the key considerations when conducting fitness assessmentsin areas with limited resources? (10)

2 What are the components of assessment of occupational hazards inmechanical work? (10)

3 Discuss the potential complications that can arise from improperseating for individuals with Spinal Cord Injury and how a properassessment can help mitigate them. (10)

4 Why is a collaborative approach crucial when using participatorytechniques to assess infant care? (10)

5 Why is health behaviour assessment important in cancer care?Justify with suitable example. (10)

6 Describe the components of health behaviour assessment. (10)

7 Explain how the assessment of fall risk and frailty areinterconnected in the context of geriatric care. (10)

8 Explain various components of community health assessment. (10)

9 Summarise any four outcome measures for assessment of activity andparticipation. (10)

10 Analyze the key principles of conducting an access audit, outlininghow each principle contributes to creating more inclusiveenvironments for individuals with disabilities. (10)

Rajiv Gandhi University of Health Sciences, Karnataka

Second Year Master of Physiotherapy Degree Examination - 05JUN2024

**Planning and Management Framework for Physiotherapy Service Provisions in Community Health - Paper -IV (RS-4)**

**Q.P. CODE: 8147**

**Planning and management framework for physiotherapy service provisions in community health paper-IV [8147]**

**Marks: 100 Duration: 200 mins.**

**Planning and Management Framework for Physiotherap**

**Answer all the questions.**

**Your answers should be specific to the questions asked.**

**Draw neat, labeled diagrams wherever necessary.**

**Answer All The Questions**

1 Describe the principles for behavior change interventions in thecommunity. (10)

2 Summarize the evidence from recent literature on the benefits ofphysiotherapy interventions in cancer care. (10)

3 Describe the planning and management of CBR Programs. (10)

4 Explain with examples, how innovations can improve rehabilitationservices in low resource settings. (10)

5 Explain the importance of screening and education programs in theprevention of Life style diseases. (10)

6 How would you analyze the interplay of various components inproviding comprehensive geriatric care and rehabilitation for olderadults? (10)

7 Explain key strategies involved in developing effective clinicalcare pathways. (10)

8 What are the current guidelines for prescription of lower limbprosthesis? (10)

9 Illustrate and explain the workstation modifications to preventoccupational hazards among desk job workers. (10)

10 Describe the best practices in implementation of rehabilitationinterventions. (10)

## Master of Physiotherapy Degree Examination – 20-Nov-2024

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

### Principles of Physiotherapy Practice, Research Methodology and Biostatistics, Exercise Physiology, Electrophysiology
### Q.P. CODE: 8121

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Fatigue assessment and management in workplace.
2. Explain in detail the anatomy and physiology of a peripheral nerve.
3. Explain with examples the different measures of central tendency.
4. Explain the use of the ICF model as a clinical problem solving tool in physical therapy.
5. Describe various tests for analysis of variance and co-variance.
6. Steps in performing systematic reviews.
7. Probability sampling.
8. Define problem oriented medical recording and elaborate its uses in planning and intervention.
9. Explain in detail the non parametric tests.
10. Explain in detail Type I and Type II errors with examples.

## Second Year Master of Physiotherapy Degree Examination – 20-Nov-2024

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

### Fundamentals in Physiotherapy Practice, Pedagogy & Research
### Paper -I (RS-4)
### Q.P. CODE: 8129

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Describe the standardized tests and scales used in assessment of gait.
2. ICMR ethical guidelines.
3. Enumerate different methods of data collection with brief note on observation method and interview method of data collection.
4. Explain the meaning of experimental and control groups in context of research design.

5. Discuss research design in case of hypothesis-testing research studies.

6. Physiological responses to acute and chronic exercise in both hot and cold environments.

7. Explain various experimental research design.
   Or
   Discuss the various assessment methods for body composition

8. Acute and chronic physiological response to exercise in both hot and cold environments.
   Or
   Describe the Electrical properties of Nerve

9. Explain the muscle plasticity in response to neuromuscular electrical stimulation.

10. Explain Tyler's principles and **Bloom's** taxonomy.

## Master of Physiotherapy Degree Examination – 22-Nov-2024

**Time: 3 Hours** **Max. Marks: 100**

### PHYSICAL AND FUNCTIONAL DIAGNOSIS
### Q.P. CODE: 8122

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Describe the importance of pathological investigation and imaging in assessment of neuromuscular conditions

2. Describe the assessment for prescription of aids and appliances in case of neurological disorders

3. Elaborate on gait analysis. Explain various methods used in analysis of Gait

4. Explain postural analysis in aging population

5. Explain fitness evaluation add a short note on ECG in exercise testing

6. Early screening to identify developmental delay

7. Explain motor control theory and its application in assessment

8. Discuss international classification of functioning, disability and health. Discuss its merits and demerits

9. Methods of kinetic and kinematic evaluation of ankle joint

10. Interpretation of arterial blood gas analysis. Add a note on organophosphate poisoning

## Second Year Master of Physiotherapy Degree Examination – 20-Nov-2024

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

### Fundamentals in Physiotherapy Practice, Pedagogy & Research
### Paper -I (RS-4)
### Q.P. CODE: 8129

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Describe the standardized tests and scales used in assessment of gait.

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3. Enumerate different methods of data collection with brief note on observation method and interview method of data collection.

4. Explain the meaning of experimental and control groups in context of research design.

5. Discuss research design in case of hypothesis-testing research studies.

6. Physiological responses to acute and chronic exercise in both hot and cold environments.

7. Explain various experimental research design.
   Or
   Discuss the various assessment methods for body composition

8. Acute and chronic physiological response to exercise in both hot and cold environments.
   Or
   Describe the Electrical properties of Nerve

9. Explain the muscle plasticity in response to neuromuscular electrical stimulation.

10. Explain Tyler's principles and **Bloom's** taxonomy.

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

### Fundamental Principles of Musculoskeletal Physiotherapy
### Paper II (RS-4)
### Q.P. CODE: 8130

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Explain the various classification of joints.

2. Describe how body size influence musculoskeletal disorder

3. Describe the Kinetic & Kinematic change following Patellectomy

4. Role of equilibrium following Total Hip Replacement

5. Describe the changes seen in gait following Osteoarthritis knee.

6. Write in detail about various methods of energy conservation following below knee amputation

7. Describe the change in the mechanics seen in lumbar spine following L4, L5 disc prolapse

8. Describe the various postural deformation seen in Ankylosis Spondylitis

9. **Compare and contrast various theories of pain and pain modulation**

10. Describe the effects of cold on skeletal muscle performance.

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

### Basic Medical Sciences for Sports Physiotherapy – Paper II (RS-4)
### Q.P. CODE: 8133

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. ain the importance of the neuro muscular systems in optimizing sports performance.

2. ine the principles of motor learning and their relevance to improving sports performance.

3. trate the relationship between improper biomechanics and the development of chronic shoulder pain in tennis players.

4. ıpare and contrast two methods used to measure body composition, highlighting their strengths and limitations.

5. ain the difference between aerobic and anaerobic energy production pathways. How do these pathways contribute to energy transfer in the body during different types of physical activities?
6. ine an intervention plan for an injured athlete, integrating psychological techniques for anxiety, motivation, and well-being.
7. ain the role and significance of NADA (National Anti-Doping Agency) and WADA (World Anti-Doping Agency) in ensuring fair play and clean competition in sports.
8. gn a personalized training protocol for a professional basketball player in the off-season. Incorporate at least four different principles of training. Explain how each principle addresses specific aspects of physical conditioning.
9. mine how the principle of progressive overload can be beneficial in designing a training program for a professional soccer player who is in the recovery phase of a lower limb injury.
10. ain Ergogenic aids, their advantages, mechanisms of operation, and fundamental ethical considerations.

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

### Basics of Cardiovascular and Pulmonary Sciences - Paper-II (RS-4)
### Q.P. CODE: 8136

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Compare Obstructive and Restrictive Lung diseases using the characters of anatomy affected, breathing phase difficulty, pathophysiology and useful measurements.
2. Describe the peripheral receptors and their role in cardiovascular control.
3. Enumerate and explain 'My Pyramid' for athletes and for sedentary individuals.
4. What is body composition? Describe Behnke's Reference Man and Woman Model.
5. Describe the calculation of MET for different activities.
6. Enumerate the health-related aspects of training.
7. Formulate an exercise prescription for a sedentary individual.
8. Describe wounds and stages of wound healing, write a note of abnormal wounds.
9. Describe the theories of pain.
10. Explain the anaerobic exercise training protocol.

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

### Basic Sciences for Neurological Physiotherapy - Paper –II (RS-4)
### Q.P. CODE: 8142

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. e about clinical Features of Amyotrophic Lateral Sclerosis and add note on various pathological changes occur in nervous system in ALS?
2. t are types of movement disorders? Explain clinical features with suitable example?
3. ne myasthenia gravis? Write about clinical features and pathological changes occur in Neuro-muscular junction?
4. e a note on sequences of motor developments.

5. e about Neural controls of human locomotion.
6. t are the environment variables and how they affect the task and performance in Parkinson's disease?
7. t is Motor learning and various stages of motor learning?
8. ain the effects of motor learning on Neuroplasticity.
9. e a note on Motor recovery and various factors effecting Motor recovery.
10. ain the role of motivation in Neuro Rehabilitation?

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

### Applied Theories, Philosophies and Global Perspective for Physiotherapy in Community Health – Paper -II (RS-4)
### Q.P. CODE: 8145

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Explain integrated theory of health behavior change.
2. Explain principles of community health.
3. Explain how emerging technology can improve physiotherapy services in rural communities.
4. What is international classification of functioning, disability and health, explain the components of ICF.
5. Why rehabilitation is key in the 21$^{st}$ century and how to prepare health systems to strengthen rehabilitation.
6. What is universal design and explain the principles of universal design.
7. Explain biomechanics of lifting and how this can be leveraged to prevent back injury.
8. Describe four potential risk factors for disability in elderly. Justify with appropriate examples.
9. Describe the factors influencing health in adolescence and the potential role of physiotherapy in this population.
10. Analyse the role of physiotherapist in improving health behavior in a woman who is newly diagnosed with Stage II breast cancer.

## Master of Physiotherapy Degree Examination – 20-Nov-2024

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

### Principles of Physiotherapy Practice, Research Methodology and Biostatistics, Exercise Physiology, Electrophysiology
### Q.P. CODE: 8121

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Fatigue assessment and management in workplace.
2. Explain in detail the anatomy and physiology of a peripheral nerve.
3. Explain with examples the different measures of central tendency.
4. Explain the use of the ICF model as a clinical problem solving tool in physical therapy.

5. Describe various tests for analysis of variance and co-variance.
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7. Probability sampling.
8. Define problem oriented medical recording and elaborate its uses in planning and intervention.
9. Explain in detail the non parametric tests.
10. Explain in detail Type I and Type II errors with examples.

## Master of Physiotherapy Degree Examination – 22-Nov-2024

**Time: 3 Hours** **Max. Marks: 100**

### PHYSICAL AND FUNCTIONAL DIAGNOSIS
### Q.P. CODE: 8122

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Describe the importance of pathological investigation and imaging in assessment of neuromuscular conditions
2. Describe the assessment for prescription of aids and appliances in case of neurological disorders
3. Elaborate on gait analysis. Explain various methods used in analysis of Gait
4. Explain postural analysis in aging population
5. Explain fitness evaluation add a short note on ECG in exercise testing
6. Early screening to identify developmental delay
7. Explain motor control theory and its application in assessment
8. Discuss international classification of functioning, disability and health. Discuss its merits and demerits
9. Methods of kinetic and kinematic evaluation of ankle joint
10. Interpretation of arterial blood gas analysis. Add a note on organophosphate poisoning

## Second Year Master of Physiotherapy Degree Examination – 20-Nov-2024

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

### Fundamentals in Physiotherapy Practice, Pedagogy & Research
### Paper -I (RS-4)
### Q.P. CODE: 8129

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**Answer All The Questions** **10 X 10 = 100 Marks**

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2. ICMR ethical guidelines.
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10. Explain Tyler's principles and **Bloom's** taxonomy.

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

### Fundamental Principles of Musculoskeletal Physiotherapy
### Paper II (RS-4)
### Q.P. CODE: 8130

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Explain the various classification of joints.

2. Describe how body size influence musculoskeletal disorder

3. Describe the Kinetic & Kinematic change following Patellectomy

4. Role of equilibrium following Total Hip Replacement

5. Describe the changes seen in gait following Osteoarthritis knee.

6. Write in detail about various methods of energy conservation following below knee amputation

7. Describe the change in the mechanics seen in lumbar spine following L4, L5 disc prolapse

8. Describe the various postural deformation seen in Ankylosis Spondylitis

9. **Compare and contrast various theories of pain and pain modulation**

10. Describe the effects of cold on skeletal muscle performance.

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

### Basic Medical Sciences for Sports Physiotherapy – Paper II (RS-4)
### Q.P. CODE: 8133

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. ain the importance of the neuro muscular systems in optimizing sports performance.

2. ine the principles of motor learning and their relevance to improving sports performance.

3. trate the relationship between improper biomechanics and the development of chronic shoulder pain in tennis players.

4. ıpare and contrast two methods used to measure body composition, highlighting their strengths and limitations.

5. ain the difference between aerobic and anaerobic energy production pathways. How do these pathways contribute to energy transfer in the body during different types of physical activities?

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7. ain the role and significance of NADA (National Anti-Doping Agency) and WADA (World Anti-Doping Agency) in ensuring fair play and clean competition in sports.

8. gn a personalized training protocol for a professional basketball player in the off-season. Incorporate at least four different principles of training. Explain how each principle addresses specific aspects of physical conditioning.

9. mine how the principle of progressive overload can be beneficial in designing a training program for a professional soccer player who is in the recovery phase of a lower limb injury.

10. ain Ergogenic aids, their advantages, mechanisms of operation, and fundamental ethical considerations.

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

### Basics of Cardiovascular and Pulmonary Sciences - Paper-II (RS-4)
### Q.P. CODE: 8136

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Draw neat, labeled diagrams wherever necessary.

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Compare Obstructive and Restrictive Lung diseases using the characters of anatomy affected, breathing phase difficulty, pathophysiology and useful measurements.
2. Describe the peripheral receptors and their role in cardiovascular control.
3. Enumerate and explain 'My Pyramid' for athletes and for sedentary individuals.
4. What is body composition? Describe Behnke's Reference Man and Woman Model.
5. Describe the calculation of MET for different activities.
6. Enumerate the health-related aspects of training.
7. Formulate an exercise prescription for a sedentary individual.
8. Describe wounds and stages of wound healing, write a note of abnormal wounds.
9. Describe the theories of pain.
10. Explain the anaerobic exercise training protocol.

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

### Applied Anatomy, Physiology and Biomechanics in Pediatrics - Paper-II (RS-4)
### Q.P. CODE: 8139

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. uss adaptive response of submaximal and high intensity exercise on musculoskeletal system.
2. **cribe the nutritional requirements for paediatric population and write the classification for malnutrition**
3. motor development up to one year of age.
4. ain theories of motor learning with example.
5. ain structure and development of muscle in detail.
6. cribe stages of lung maturation.
7. roplasticity and explain its clinical application in high risk infants.
8. t are primitive reflexes and explain its association with gross motor development.
9. ain development of gastrointestinal system and mention about dysphagia.
10. ain principles of immunization. Add note on passive immunization.

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

## Basic Sciences for Neurological Physiotherapy - Paper –II (RS-4)
## Q.P. CODE: 8142

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Write about clinical Features of Amyotrophic Lateral Sclerosis and add note on various pathological changes occur in nervous system in ALS?
2. What are types of movement disorders? Explain clinical features with suitable example?
3. Define myasthenia gravis? Write about clinical features and pathological changes occur in Neuro-muscular junction?
4. Write a note on sequences of motor developments.
5. Write about Neural controls of human locomotion.
6. What are the environment variables and how they affect the task and performance in Parkinson’s disease?
7. What is Motor learning and various stages of motor learning?
8. Explain the effects of motor learning on Neuroplasticity.
9. Write a note on Motor recovery and various factors effecting Motor recovery.
10. Explain the role of motivation in Neuro Rehabilitation?

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

## Applied Theories, Philosophies and Global Perspective for Physiotherapy in Community Health – Paper -II (RS-4)
## Q.P. CODE: 8145

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. ain integrated theory of health behavior change.

2. ain principles of community health.
3. ain how emerging technology can improve physiotherapy services in rural communities.
4. t is international classification of functioning, disability and health, explain the components of ICF.
5. rehabilitation is key in the 21st century and how to prepare health systems to strengthen rehabilitation.
6. t is universal design and explain the principles of universal design.
7. ain biomechanics of lifting and how this can be leveraged to prevent back injury.
8. cribe four potential risk factors for disability in elderly. Justify with appropriate examples.
9. cribe the factors influencing health in adolescence and the potential role of physiotherapy in this population.
10. yse the role of physiotherapist in improving health behavior in a woman who is newly diagnosed with Stage II breast cancer.

## Second Year Master of Physiotherapy Degree Examination – 22-Nov-2024

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

## Fundamental Principles of Movements and its Dysfunction–Paper-II(RS-4)
## Q.P. CODE: 8148

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. ain the motor development of milestones from birth to two years of age.
2. ain the anatomy and physiology of the peripheral nerve and neuromuscular junction.
3. ain the relationship between theories of motor control and the parallel development of clinical methods related to neurologic rehabilitation.
4. ain the action components of postural control. Define principles of strategies and how they change according to task and environmental demands.
5. ain the contributions of neural and musculoskeletal systems to reach and grasp skills, and predict the skill deficits that would occur with lesions to these systems.
6. ne aging. Explain the theories of aging.
7. ain the major kinematic, kinetic, and Electromyographic changes that occur during the development and maturation of independent gait in children and the changes in these parameters that occur with aging.
8. ain Normal responses to aerobic exercises with respect to energy transfer, oxygen intake, and oxygen debt.
9. ain the response of Blood pressure during resistance exercise, upper body exercises, and exercise in the inverted position.
10. cribe the hormonal regulation of fluid balance during exercise.

## Master of Physiotherapy Degree Examination – 25-Nov-2024

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

## PHYSIOTHERAPEUTICS
## Q.P. CODE: 8123

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Outline of Burns rehabilitation.
2. Outline of Cancer rehabilitation.
3. Usage of Biofeedback.
4. Artificial respirators.
5. Physiotherapy in Psychiatric condition.
6. Yoga and its application.
7. Guidelines for soft tissue injury management.
8. Explain any one approach in paediatric physiotherapy.
9. Intensive care unit monitoring.
10. Pain modulation.

**Master of Physiotherapy Degree Examination – 27-Nov-2024**

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

## MUSCULOSKELETAL DISORDERS AND SPORTS
## Q.P. CODE: 8124

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Enumerate the recent advance in management of Rotator cuff injuries.
2. Discuss the methods of kinetic and kinematic investigations in detail.
3. Functional capacity evaluation.
4. Role of perturbation training in prevention of ACL injuries.
5. Craniosacral therapy.
6. Decision making process in selecting appropriate technique in Manual therapy.
7. Pathomechanics of Foot deformities.
8. Diagnostic accuracy of SLR.
9. Prosthetic rehabilitation following below knee amputation.
10. Clinical assessment for a use of lateral three and half fingers and hand paraesthesia.

**Master of Physiotherapy Degree Examination – 27-Nov-2024**

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

## NEUROLOGICAL AND PSYCHOSOMATIC DISORDERS
## Q.P. CODE: 8125

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. List the Metabolic diseases in nervous system and its PT management.
2. Recent advances in management of balance in cerebellum dysfunction.
3. Role of Motor relearning programme in gait training in stroke.
4. PT management of L4-L5 IVDP with neural involvement duration 2 weeks.
5. Write a note on Mirror therapy in stroke.
6. Write about Hand rehab following post-surgical Traumatic Brachial plexus injury duration 2 months.
7. Role of Vestibular system in Balance.
8. What are Psychosomatic disorders and its classifications? Write about its PT management.
9. Role of Biofeedback training in Neuro rehabilitation.
10. Write a note on ANS evaluation.

## Master of Physiotherapy Degree Examination – 27-Nov-2024

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

### CARDIO RESPIRATORY DISORDERS
### Q.P. CODE: 8126

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

**Answer All the Questions** **10 X 10 = 100 Marks**

1. Explain the biomechanical alterations of the thoracic age in patient with kyphoscoliosis. Add a note on pulmonary function changes in these patients.
2. Recent advances on inspiratory muscle training in weaning intubated patients.
3. Explain in detail how will you assess and treat a 60-year-old male patient suffering from chronic bronchitis.
4. Outline the various management strategies for adult respiratory distress syndrome with management for the same.
5. Describe the effect of various exercises in diabetes and their significance.
6. Describe the different breathing strategies used for airway clearance.
7. Explain the rationale for laboratory investigations with regard to PT management in ICU.
8. Discuss the general principles of PT management for respiratory failure.
9. Write in detail about exercise planning and prescription for Hypertension.
10. Importance of ABG in physiotherapy treatments.

## Master of Physiotherapy Degree Examination – 27-Nov-2024

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

### COMMUNITY PHYSIOTHERAPY
### Q.P. CODE: 8127

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

**Answer All the Questions** **10 X 10 = 100 Marks**

1. Describe with current evidence the evaluation guidelines for prevention of falls in the elderly in the community.

2 Describe the risk factors for post partum dysfunction of the pelvic floor. What are the strategies for remediation of pelvic pain and incontinence in this population?

3. What are occupational hazards? What are the hazards associated with visual display units?

4. What are the strategies for identification of children with developmental delay in the community?

5. Describe the scope, role and responsibilities of the physiotherapist in primary health care delivery.

6. Describe the theories of aging.

7. Describe the ICF model with an example. Add a note on the usefulness of this model for evaluation in physiotherapy.

8. Describe the need for work conditioning programs.

9. Compare and contrast 1995 PWD Act with 2016 RPWD Act

10. Describe primary prevention strategies for diabetes in a workplace setting.

## Second Year Master of Physiotherapy Degree Examination – 25-Nov-2024

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

### Physical and Functional Diagnosis in Musculoskeletal Disorders
### Paper III (RS-4)
### Q.P. CODE: 8131

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Explain the basic assessment method used for the musculoskeletal system diagnosis.

2. Discuss about the role of screening the shoulder joint in overhead injury.

3. Explain the screening techniques of forearm region in diagnosis of tennis elbow.

4. Explain the importance of primary care in physiotherapy for degenerative conditions.

5. Explain the special tests of knee complex used in musculoskeletal system.

6. Exercise testing and prescription in arthritis patient.

7. Describe in detail about the post operative assessment in Head of femur fracture in 58 year old female. Add note on its complications.

8. Write in detail the musculoskeletal assessment method and screening in congenital dislocation of hip.

9. Explain the uses of ICF in diagnosis of musculoskeletal disorders.

10. What are the criteria for fitness evaluation in adults?

## Second Year Master of Physiotherapy Degree Examination – 27-Nov-2024

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

### Physiotherapy Interventions in Musculoskeletal Disorders
### Paper IV (RS-4)
### Q.P. CODE: 8132

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Describe the impaired endurance seen in bed ridden patients.

2. Describe the physiological mechanism of analgesia effect in the management of pain

3. Describe the concept of functional rehabilitation following total knee replacement

4. Describe the principles of Butlers mobilization and methods of performing the lower limb tissue tension tests

5. Describe the role of cognitive behavioral therapy for a subject with neck pain

6. Write in detail about extra corporeal shock wave therapy used for issue healing

7. Describe work related musculoskeletal disorders seen in rock drillers

8. Write in detail about the work conditioning program for mason following a rotator cuff injury

9. Describe the management and rehabilitation following total Patellectomy

10. Write in detail about management of complex regional pain syndrome following Colles fracture

## Second Year Master of Physiotherapy Degree Examination – 25-Nov-2024

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

### Sports Assessment, Injury Evaluation (Sports Traumatology) and Exercise Physiology – Paper III (RS-4)
### Q.P. CODE: 8134

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Write in detail about the Criteria for returning to sports after an ACL injury.

2. Mention the types of muscle contraction and Explain about Isokinetic exercise, its importance in quadriceps training.

3. Discuss about documentation and examination for low back pain in cricket fast bowlers and add a note on " Start back screening" tool.

4. Write in detail about the skill – related physical fitness assessment, add a note on Physical fitness components.

5. Explain the sports specific assessment in a professional Kabaddi player and add a note on return to sports criteria.

6. Write in detail about contact sports injuries and its assessment among football players.

7. Explain about the different Diagnostic imaging techniques prescribed for an athlete who has pain in the hip during weight bearing and movements.

8. Write in detail about the protocols of On field evaluation of the injured players.

9. Write in detail about the Assessment of Acute hamstrings strain in football player.

10. Write in detail about knee instability and explain its assessment procedures.

## Second Year Master of Physiotherapy Degree Examination – 27-Nov-2024

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

### Sports Injuries, Prevention, Management and Rehabilitation – Paper IV (RS-4)
### Q.P. CODE: 8135

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Define pes planus. Explain the physiotherapy management for pes planus among basket ball players.

2. Explain in detail about the common Injuries and explain the management of any joint injury in a Gymnast.

3. Explain in detail about female athlete triad. Discuss the physiological differences between a male and female athlete. its possible impact on training.

4. Briefly explain the role of wearables, sensory garments, sensory helmets in maintenance of health and injury prevention in a professional athlete.

5. Explain in detail about the mechanism of injury in Skiers thumb. Describe in detail about its physiotherapy rehabilitation.

6. Explain the role of a sports physiotherapist in Emergency care and athletic first aid and on field management of an gymnast who sustained cervical Injury while performing somersault.

7. Explain about the mechanism of Posterior cruciate ligament injury. Explain the steps taken to prevent PCL injury and describe its rehabilitation protocol.

8. Write in detail about the effects of aerobic exercises on growth hormone in adolescent athlete.

9. Write about the Sports specific evaluation for a sprinting female athlete following Meniscal repair for return to sports.

10. Define Heat stroke, write down the causes of heat stroke in long distance runners and Mention the steps taken to prevent heat strokes in runners.

## Second Year Master of Physiotherapy Degree Examination – 25-Nov-2024

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

## Physical Assessment and Functional Diagnosis of Cardiovascular and Pulmonary Sciences - Paper-III (RS-4)

## Q.P. CODE: 8137

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Describe the different diagnostic measures used in cardiac diseases.

2. Explain the use and principles of MRI in pulmonary imaging.

3. Discuss the diagnostic and therapeutic questions for clinical pulmonary function testing adding a note on the specific purposes for assessing the same.

4. Describe ECMO and its uses.

5. What is the function of ANS? Write a note on the division of ANS and its role on cardiac activity. Explain briefly the methods of ANS testing.

6. Explain the tests for measuring strength as a part of fitness assessment.

7. What are decubitus ulcers? Explain the staging criteria for the same.

8. Illustrate body diagrams. Explain briefly the importance and role of body diagrams in pain assessment.

9. Differentiate exercise and physical activity. Describe exercise as an assessment and evaluation tool.

10. What is angiography? Describe the procedure and add a note on the significance of the test. Explain briefly why is it important for a PT to know?

## Second Year Master of Physiotherapy Degree Examination – 27-Nov-2024

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

## Physiotherapy Interventions in Cardio-Vascular and Pulmonary Sciences
## Paper-IV (RS-4)
## Q.P. CODE: 8138

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Explain open heart surgeries. Write a note on the indications and complications post open-heart surgery.

2. Explain the principles of bronchial hygiene therapy and techniques in neonate.

3. Enumerate Neurophysiological facilitation of respiration, and explain 3 techniques.

4. Explain the physiological basis of Incentive Spirometry. What are the indications, contraindications, hazards and complications? Add a note on the equipment used.

5. What is Hydration, Humidification and Nebulization? Classify types of humidifiers and add a note on the indications, complications and methods of humidification.

6. Discuss the clinical practice guidelines for oxygen therapy. Add a note on oxygen toxicity.

7. Describe the exercise prescription for hypertension and detail the exercise training considerations.

8. Describe the common sites for ulcers in patients with desensitized skin and techniques for prevention of ulcers.

9. Describe the elements of international standards for a cardiac rehabilitation program.

10. Describe the use of pharmacotherapeutics and its relevance in an individual undergoing PFT testing.

# Second Year Master of Physiotherapy Degree Examination – 25-Nov-2024

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

## Physical and Functional Diagnosis in Paediatrics - Paper-III (RS-4)
## Q.P. CODE: 8140

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Mention about different neuroimaging findings used in cerebral palsy.

2. Classify bleeding disorder and add a note on its assessment in paediatric population.

3. Assessment and functional diagnosis of Attention Deficit Hyperactivity Disorder.

4. Describe Clinical identification and differential diagnosis in possible genetic abnormalities.

5. Role of physiotherapist in the assessment of ergonomics in children.

6. Evaluation of balance and coordination in a 2 year old child diagnosed with down's syndrome.
7. Write about selective motor control.
8. Nutritional assessment in children.
9. Explain Ages and Stages questionnaire.
10. Discuss about criterion referenced scales used in assessing developmental delay.

## Second Year Master of Physiotherapy Degree Examination – 27-Nov-2024

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

### Paediatric Physiotherapy/ Physiotherapeutics in Paediatrics - Paper-IV (RS-4)
### Q.P. CODE: 8141

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Discuss the application of mobility aids in cerebral palsy.
2. Plan an early intervention protocol in Hip Dysplasia.
3. Explain the application of Yoga in Paediatric Population.
4. Formulate an exercise program for a 13 year old child with thoracolumbar scoliosis.
5. Explain recent trends in PT management of developmental coordination disorder.
6. Write about Oromotor dysfunctions and explain the role of physiotherapy in the management of Oromotor dysfunction.
7. Explain the rehabilitation of 16 year old boy with C6 level spinal cord injury.
8. Mention the types of burns and describe rehabilitation in detail.
9. Explain the management of 10 year old child with Perthe's disease.
10. Discuss about the importance of promotion of physical activity and fitness in school going children.

## Second Year Master of Physiotherapy Degree Examination – 25-Nov-2024

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

### Neurophysiotherapy Assessment - Paper –III (RS-4)
### Q.P. CODE: 8143

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Describe the assessment of Higher Mental Functions using various scales.
2. Explain the assessment of movement dysfunction in progressive disorder of Spinal Cord.
3. Discuss the screening and assessment for prevention and risk reduction of secondary impairments in Parkinson disease.
4. Explain EMG in detail and its applications.
5. What are the observations in Neuroimaging of functional recovery after Stroke

6. Explain postural control assessment.

7. Write about assessment of Instrumental activities of daily function.

8. What are methods to assess personal barriers in C5 level Spinal cord injury patients?

9. Describe Quality-of-life measures.

10. Explain the assessment of Assistive technology in Gait rehabilitation.

## Second Year Master of Physiotherapy Degree Examination – 27-Nov-2024

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

### Neurophysiotherapy Treatment – Paper –IV (RS-4)
### Q.P. CODE: 8144

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. What are the complications of stroke and explain the role of physiotherapy in preventing various complications of stroke.

2. Write about various physiotherapy interventions used in improving consciousness in comatose patients.

3. Write about various physiotherapy interventions used in movement disorders to reduce Dystonia.

4. Explain about various physiotherapy interventions used in improving posture and balance in Parkinson patients.

5. Explain recent advances in improving upper limb function in chronic stroke patients.

6. Explain role of Functional Electrical Stimulation in management of peripheral nerve injury.

7. Write about various treatment approaches used in improving the trunk balance in stroke patients.

8. Explain the principles of Motor relearning program (MRP)and how it can be used for Gait training.

9. What is the importance of environmental remodeling, explain with examples.

10. What are the behavior change techniques and how it can affect patient recovering from Neurological disorders?

## Second Year Master of Physiotherapy Degree Examination – 25-Nov-2024

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

### Assessment Framework for Physiotherapy Service Provisions in Community Health – Paper -III (RS-4)
### Q.P. CODE: 8146

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Describe any two outcome measures to assess quality of life in patients with neurological disabilities.

2. Plan a needs assessment for development of IEC material for physical activity promotion in a multinational company.

3. Discuss principles of community health assessment.

4. Explain the components of fitness assessment in older adults.

5. Discuss seating assessment in wheelchair for a 7-year-old child with Duchenne Muscle Dystrophy.

6. Enlist common ergonomic assessment tools. Explain components and uses of any two.

7. Justify the importance of fall risk assessment in elderly inpatient settings.

8. Discuss assessment of uterine prolapse.

9. Analyse the components of pre-habilitation assessment in patients with cancer and explain their importance.

10. Discuss components of disability evaluation in patients with spinal cord injury.

## Second Year Master of Physiotherapy Degree Examination – 27-Nov-2024

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

## Planning and Management Framework for Physiotherapy Service Provisions in Community Health – Paper -IV (RS-4)

## Q.P. CODE: 8147

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Explain any two facilitators and barriers to implementing health education programs in an rural community setting

2. Summarize any five strategies to promote behavior change in people with coronary artery disease.
3. Explain how rehabilitation is related to attainment of sustainable development goals

4. Explain with two different examples on how community participation can enhance primary health care.
5. Implementing universal design in public buildings will improve accessibility and utilization. Explain this statement with an appropriate example.
6. Describe the components of work hardening program with an appropriate example.

7. Plan a multicomponent geriatric rehabilitation program for a frail older adult.

8. What is the role of exercise interventions in men with prostate cancer?

9. Current clinical practice guidelines recommend exercise to be integrated as an adjuvant therapy across the cancer care continuum. Justify.

10. What are the best practice guidelines for community-based rehabilitation?

## Second Year Master of Physiotherapy Degree Examination – 25-Nov-2024

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

## Measurement and Assessment in Movement - Paper -III (RS-4)

## Q.P. CODE: 8149

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. Describe the systems based assessment that you would undertake in an obese woman of 53, prior to engaging in a low intensity exercise program. Justify your answer.

2. Describe physiological adaptations to exercise in musculoskeletal and endocrine system. Discuss the assessment methods that can be used addressing these systems.

3. Discuss the current guidelines on exercise prescription for decreasing the risk of falls. How do these guidelines impact your assessment of an older person who has been referred for exercise prescription?

4. Compare and contrast the biomechanical assessment that you would undertake in adolescent girl and an obese man of 55 year. Justify with respect to physiological changes between the two.

5. Compare and contrast the assessment of hand function using a standardised assessment form and instrumented analysis. Consider indications, challenges and desired outcome.

6. How can you analyse joint moments of gait? What are the indications for this analysis? What are the valid methods of clinical estimation and laboratory analysis?

7. A 57 year old lady reports to the department with a history of knee pain. All laboratory investigations are normal but with early degenerative changes seen on radiographs. Her BMI is 24 and she reports that since the Covid pandemic she has stopped walking. What are your hypotheses for her history? What assessments would you do as preliminary screening? Justify your choice of tests and measures.

8. What are the strengths and limitations of clinical coordination assessment tools? Explain with examples

9. What are the indications for instrumented gait evaluation in an amputee? Discuss strengths and limitations of instrumented and clinical assessment for prosthetic planning.

10. A 50 year old nurse a known case of chronic low back pain presents with new onset history of left hip pain. Your initial hypothesis is that it is related to early degenerative changes from biomechanical adaptation due to back pain and her occupation. How would you proceed with assessment? Justify

## Second Year Master of Physiotherapy Degree Examination – 27-Nov-2024

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

### Movement Remediation - Paper -IV (RS-4)
### Q.P. CODE: 8150

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

**Answer All The Questions** **10 X 10 = 100 Marks**

1. How do ageists beliefs impact physical fitness? Elucidate with examples from India.

2. What are the challenges to exercise adherence among young men in their twenties? Describe strategies to decrease injury risks due to body-image goals.

3. What are the common work related musculoskeletal disorders due to prolonged standing jobs? Briefly describe the biomechanical reasons attributed to them.

4. What are the possible adverse effects due to a person with congenital torticollis partially corrected; using computer work station designed for the average person? What are design principles that would decrease this problem?

5. Describe the dynamic biomechanical model of load transport in a trolley. How would you use this to decrease the incidence of strains and sprains in workers?

6. Compare and contrast symptom based assessment and biomechanical risk assessment in work related musculoskeletal disorders? What are the strength and limitations of each? Justify using an example.

7. What are the environmental factors affecting fitness levels in office employees? What strategies can be undertaken by the administration to minimise these factors and promote optimum physical activity behaviours?

8. Describe the principles of cognitive behavioural therapy. How can these be used in setting goals for physical fitness in obese individuals?

9. Analyse the role of movement enriched childhood in improving motor control in people with low back pain.

10. Describe any one strategy of movement aimed to improves coordination, flexibility and endurance. Describe how this method can be integrated into therapy for older persons at risk or falls.