

Question Paper

Exam Date & Time: 05-Jan-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER MPT (CARDIOPULMONARY SCIENCES) DEGREE EXAMINATION - JANUARY 2023
SUBJECT: PTH6101 - PHYSIOTHERAPY IN GENERAL CARDIOPULMONARY SCIENCES
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) A 45-year-old gentleman with bronchiectasis was admitted with pneumonia and shortness of breath. Describe the assessment of this individual, the rationale for this choice of assessments and the evidence-based physiotherapy strategies for these problems. (20)
(8+2+10 = 20 marks)
- 2) A 35-year-old lady was admitted to the intensive care unit (ICU) with organophosphorus poisoning. She is intubated and on mechanical ventilation (Mode: SIMV, FiO₂: 0.7, PEEP: 6, PS: 10, Rate: 12). What monitoring devices do and bedside technologies would be appropriate for this lady? If she develops impaired airway clearance, what would be your reasoning and decision-making process to tackle this? What treatment strategies would you consider for her to minimize complications? (20)
(4+8+8 = 20 marks)
- 3A) Describe the physiotherapy management strategies and its rationale for a patient who has undergone a Whipple's procedure. (10)
- 3B) Explain the evidence-based management strategies for an individual with a chronic, non-healing wound. (10)
- 3C) Outline the evidence-based strategies for rehabilitation in chronic kidney disease. (10)
- 3D) Explain the reasons for functional limitations following chemoradiotherapy and describe the evidence-based strategies for rehabilitation for an individual undergoing chemoradiotherapy. (10)
(5+5 = 10 marks)
- 4A) Mention the management strategies for acute post-operative pain. (5)
- 4B) List the complications of diabetic foot. (5)
- 4C) Describe the physiotherapy management for an individual with kyphoscoliosis. (5)
- 4D) Mention the exercise prescription guidelines for an individual with obesity. (5)

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MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER MPT (COMMUNITY PHYSIOTHERAPY) DEGREE EXAMINATION - JANUARY 2023
SUBJECT: PTH6201 - PHYSIOTHERAPY IN GENERAL OCCUPATIONAL HEALTH
(2021 SCHEME)

Answer ALL questions.

Marks: 100

Duration: 180 mins.

- 1) Explain the principles of ergonomics. Appraise the principles to reduce work related disorders in sedentary workers. (20)
- 2) Apply the principles of ergonomics and Universal Design to plan and design an assistive device for reducing spillage in adults with tremors. (20)
- 3A) Explain the role of legislation at workplace. (10)
- 3B) Explain the pathophysiology of work related musculoskeletal disorders. (10)
- 3C) Explain the biomechanical analysis of hand held drilling device (10)
- 3D) Apprise the tools for assessing cardiovascular demands at workplace. (10)
- 4A) List the skills required by workers for information processing. (5)
- 4B) List punitive measures as a strategy in worksite wellness programs. (5)
- 4C) Explain the common health related risk factors among aging workforce. (5)
- 4D) List the occupational hazards encountered by firefighters. (5)

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MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER MPT (GERIATRICS) DEGREE EXAMINATION - JANUARY 2023
SUBJECT: PTH6301 - PHYSIOTHERAPY IN GENERAL GERIATRICS
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Evaluate the effect of aging on gait speed and functional mobility with its implications. Discuss the evaluation of functional mobility in the elderly. (20)
(12+8 = 20 marks)
- 2) Explain the musculoskeletal system changes in the elderly. Describe the evidence-based intervention strategies for sarcopenia among older adults. (20)
(10+10 = 20 marks)
- 3A) Discuss the use of technological solutions for promoting independent living among the elderly. (10)
- 3B) Explain the indicators for poor QOL in older adults. (10)
- 3C) Outline fall risk assessment tools. (10)
- 3D) Mention the role of palliative and supportive care in end of life. (10)
- 4A) Summarize ergonomics for elderly. (5)
- 4B) Illustrate models of clinical reasoning in elder care. (5)
- 4C) Recall aging with disability. (5)
- 4D) Develop community- centred wellness programs. (5)

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MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER MPT (MUSCULOSKELETAL SCIENCES) DEGREE EXAMINATION - JANUARY 2023
SUBJECT: PTH6401 - PHYSIOTHERAPY IN GENERAL MUSCULOSKELETAL SCIENCES
(2021 SCHEME)

Answer ALL questions.

Marks: 100

Duration: 180 mins.

- 1) Describe the principles of mulligan's approach in assessing and managing musculoskeletal pain and dysfunction. Appraise the positional fault theory associated with injury and describe how mulligan techniques can address the fault. (20)
- 2) Explain common injury prevention strategies to prevent lower extremity sports injuries. Devise an evidence-based treatment strategy to prevent hamstring injuries. (20)
- 3A) Outline the sensory and motor assessment for common Hand conditions. (10)
- 3B) Explain the key components of exercise prescription for people with conservatively managed subacromial pain syndrome following an overhead sporting injury. (10)
- 3C) Justify the use of the biopsychosocial model of pain in the assessment and management of pain in mechanical musculoskeletal disorders. (10)
- 3D) Outline the clinical assessment procedures to screen myofascial pain syndromes. (10)
- 4A) List key principles of physiotherapy management in connective tissue musculoskeletal disorders. (5)
- 4B) Outline three screening procedures for the safe application of Manual therapy for people with neck pain. (5)
- 4C) Explain the mechanisms of action of taping in people with structural and functional ankle instability. (5)
- 4D) Summarise key components of the post-operative rehabilitation program in people with tibial plateau fractures. (5)

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MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER MPT DEGREE EXAMINATION - JANUARY 2023
SUBJECT: PTH6501 - PHYSIOTHERAPY IN GENERAL NEUROSCIENCES
(NEUROSCIENCES)
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain the physiotherapy management of a 6 years old child with meningomyelocele at upper thoracic level. (20)
- 2) Compare and contrast the applications of Neurodevelopmental Therapy and Sensory Integration. (20)
- 3A) Discuss the physiotherapy management for Spasticity. (10)
- 3B) Discuss the principles of Wheelchair prescription for spinal cord injuries. (10)
- 3C) Discuss the evidence for LSVT BIG as a treatment of choice for gait abnormalities in Parkinson's disease. (10)
- 3D) Explain the role of balance management in vestibular hypofunction. (10)
- 4A) What is F-wave and add a note on diagnostic relevance. (5)
- 4B) Explain the features and management of Ideomotor Apraxia. (5)
- 4C) Describe the principle of application of Ankle Foot Orthosis in neurorehabilitation. (5)
- 4D) Rationalize the guidelines for selecting a patient for EMG Biofeedback. (5)

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MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER MPT(OBG) DEGREE EXAMINATION - JANUARY 2023
SUBJECT: PTH6601 - PHYSIOTHERAPY IN GENERAL OBSTETRICS & GYNECOLOGY
(2021 SCHEME)

Answer ALL questions.

Marks: 100

Duration: 180 mins.

- 1) 20 years old overweight woman referred for Physiotherapy, in view of irregular menstruation cycle and weight gain of 7 to 8 kilograms in one year with unhealthy eating habits. Explain health-related fitness evaluation and develop a structured exercise program for the same. (20)
(10+10 = 20 marks)
- 2) 65-year-old female with a bilateral pain in the knee joints that aggravates by walking and prolonged standing has been diagnosed with osteopenia via dual energy X-ray absorptiometry (DEXA.) (20)
 - (i) Write category values of T-score.
 - (ii) Explain the fitness testing protocol with its rationale and plan a detailed fitness assessment of this patient.
 - (iii) Develop an evidence-based intervention following the principles of exercise prescription.(1+9+10 = 20 marks)
- 3A) Explain the causes of female infertility. Enlist the investigations related to infertility in women. (10)
(6+4 = 10 marks)
- 3B) Explain the pathophysiology, clinical features and diagnostic criteria for Gestational Diabetes mellitus. (10)
(5+3+2 = 10 marks)
- 3C) Explain the implications on health following chemotherapy and analyse the role of physiotherapy in the management of patients for the same. (10)
(5+5 = 10 marks)
- 3D) Explain the technique and types of mammography. Discuss the mammogram guidelines. (10)
(6+4 = 10 marks)
- 4A) Enlist the types of contraceptives available for women and briefly write the side effects. (5)
(3+2 = 5 marks)
- 4B) Explain the effect of exercise on lactation. (5)
- 4C) Explain the stages of breast cancer and list the surgical interventions. (5)
(3+2 = 5 marks)
- 4D) Classify eating disorders and briefly explain their clinical implication in adolescence. (5)
(2+3 = 5 marks)

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MANIPAL ACADEMY OF HIGHER EDUCATION

THIRD SEMESTER MPT (PAEDIATRICS) DEGREE EXAMINATION - JANUARY 2023
SUBJECT: PTH6701 - PHYSIOTHERAPY IN GENERAL PAEDIATRICS
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) A five-year-old child has come with difficulty walking. On observation the child walks with hip and knee flexion with excessive ankle dorsiflexion. Describe the gait abnormality and plan the physiotherapy assessment and management. (20)
(10+10 = 20 marks)
- 2) A child born at 30 weeks gestation age with birth weight AGA and presenting with mild respiratory distress. During the third trimester, the mother received respiratory and neuro prophylaxis in view of threatened preterm. Describe and illustrate in detail the neurological examination and the physical findings of the newborn. (20)
(10+10 = 20 marks)
- 3A) Describe the physiotherapy management of a three-year-old child affected with right-sided lower-lobe pneumonia. (10)
- 3B) Describe the orthotic management for Myelomeningocele. (10)
- 3C) Explain the Physiotherapy approaches for Idiopathic Scoliosis. (10)
- 3D) Describe the components of Constraint Induced Movement Therapy. (10)
- 4A) Classify the paediatric cardio-pulmonary disorders. (5)
- 4B) Outline the good and poor prognostic factors in Obstetric Brachial Plexus Injury. (5)
- 4C) Outline the evaluation methods of body composition in children. (5)
- 4D) Enumerate the key points of control/contact in neuro-development therapy. (5)

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