

Question Paper

Exam Date & Time: 01-Sep-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER MPT (MUSCULOSKELETAL SCIENCES) DEGREE EXAMINATION - SEPTEMBER 2022
SUBJECT: PTH 5402 - FOUNDATIONS OF PHYSIOTHERAPY IN MUSCULOSKELETAL SCIENCES
(HAND REHABILITATION)
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) Explain methods of gait examination in musculoskeletal disorders. (20)
- 2) Explain in detail about peripheral and central sensitization of pain. Discuss the management techniques for the same. (20)
(10+10 = 20 marks)
- 3A) Discuss the phases of ligament healing and different intervention strategies at each phase of healing. (10)
(5+5 = 10 marks)
- 3B) Explain the biomechanics of Weightlifting. (10)
- 3C) Write in detail upper extremity functional tests. (10)
- 3D) Discuss properties of two outcome measures used in knee rehabilitation. (10)
- 4A) Discuss the effect of Shoulder complex pathomechanics in shoulder dysfunctions. (5)
- 4B) Discuss effect of strength training on neuromusculoskeletal system. (5)
- 4C) Discuss assessment techniques for structural differentiation of neural structures. (5)
- 4D) Discuss the functional biomechanical assessment of foot in knee disorders. (5)

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MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER MPT (NEUROSCIENCES) DEGREE EXAMINATION - SEPTEMBER 2022
SUBJECT: PTH5502 - FOUNDATIONS OF PHYSIOTHERAPY IN NEUROSCIENCES
(NEUROLOGICAL PHYSIOTHERAPY)
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

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| 1) | Discuss in detail the neurophysiology of Locomotion. | (20) |
| 2) | Describe the brainstem reflexes and explain their role on milestone development.
(10+10 = 20 marks) | (20) |
| 3A) | Explain Any FIVE mechanisms of neural plasticity within the central nervous system. | (10) |
| 3B) | Explain in detail the pathophysiology of spasticity. | (10) |
| 3C) | Compare central and peripheral vestibular system. | (10) |
| 3D) | Discuss the clinical applications of theories of motor learning related to stages of learning. | (10) |
| 4A) | Describe the functions of cerebellum. | (5) |
| 4B) | Write the strategies used to maintain dynamic postural control. | (5) |
| 4C) | Write a note on neuromuscular junction and synaptic transmission. | (5) |
| 4D) | Circle of Willis. | (5) |

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MANIPAL ACADEMY OF HIGHER EDUCATION

SECOND SEMESTER MPT (OBG) DEGREE EXAMINATION - SEPTEMBER 2022
SUBJECT: PTH5602 - FOUNDATIONS OF PHYSIOTHERAPY IN OBSTETRICS AND GYNECOLOGY
(GYNECOLOGICAL PHYSIOTHERAPY)
(2021 SCHEME)

Marks: 100

Duration: 180 mins.

Answer all the questions.

- 1) A 28 year-old primigravidae in her third trimester, has chief complaints of pain over the buttocks while doing activities like bed transitions, climbing up stairs and getting up from the chair since past one week. Pain gets relieved with supine lying. She also complaints of involuntary leakage of urine while coughing and sneezing. Plan out a detailed physiotherapy assessment for this patient. (20)
- 2) Explain the physiological changes in cardio-respiratory system, musculoskeletal system and its clinical implications. (15+5 = 20 marks) (20)
- 3A) Discuss the stages of puberty. (10)
- 3B) Discuss the anatomy of female breast. (10)
- 3C) Explain the effects of pregnancy on the biomechanics of thorax. (10)
- 3D) Explain the factors causing chronic pain and its physiotherapy management. (4+6 = 10 marks) (10)
- 4A) Classify lymph nodes based on location. (5)
- 4B) Discuss the assessment of Diastasis Recti Abdominis (DRA). (5)
- 4C) Discuss the reasons for falls in elderly women with postmenopausal osteoporosis. (5)
- 4D) Compare ANY TWO symptoms specific outcome measures for urinary incontinence. (5)

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