

Pattern of the Entrance Examinations – PhD (Physiotherapy)

For Entrance Examination, there would be two papers i.e. Paper – I and Paper – II.

Paper – I would be based on Research Methodology for 100 marks.

Paper – II would be based on Physiotherapy subjects for 100 marks.

Table No: 1 Scheme of Examination

S. No	Papers	Subject	Pattern	Marks	Total
1.	I	Research Methodology & Biostatistics	MCQs	100	100
2.	II	Physiotherapy Subjects (Cardiorespiratory, Musculoskeletal, Neurological, Rehabilitation, Sports, Women's Health)	MCQs	100	100
			Total	200	200

DETAILED SYLLABUS

PAPER – I (RESEARCH METHODOLOGY & BIostatISTICS)

1. Types of research – Quantitative and Qualitative
2. Steps in research process
3. Types of variables – dependent and independent
4. Types of hypothesis – Null, Alternate, One tailed, two tailed
5. Characteristics of a good research question, PICO format
6. Review of literature – Sources and importance, how to read an article – critical appraisal
7. Importance of inclusion and exclusion criteria
8. Types of study design – Experimental and Non experimental, different sub types of study designs
9. Reliability and validity
10. Sampling – Frame, size and different types
11. Different methods of data collection
12. Testing the hypothesis – statistical tests to be used in different research designs
13. Ethical practice in human research – common errors and methods to overcome them
14. Measures of central tendency, measures of dispersion, normal distribution curve
15. Commonly used statistical tests in health care research – Parametric and non-parametric
16. Interpretation of statistical results and its clinical importance
17. Minimal Detectable Change (MDC) and Minimal Clinically Important Difference (MCID)
18. Reporting research and writing paper for publication
19. Getting Research Into Practice

PAPER – II [PHYSIOTHERAPY SUBJECTS (CARDIORESPIRATORY, MUSCULOSKELETAL, NEUROLOGICAL, REHABILITATION, SPORTS, WOMEN'S HEALTH)]

1. Assessment and evaluation of cardiopulmonary system – vitals, stress testing, ABG analysis, ECG monitoring, Pulmonary Function Tests, Lung volumes and capacities
2. Principles of ICU management of critically Ill patients including NICU
3. Physiotherapy management of obstructive and restrictive lung disease
4. Cardiac and Pulmonary Rehabilitation – Principles and stages
5. Physiotherapy management in post-surgical cardiac and respiratory conditions
6. Physiotherapy management of traumatic, degenerative, infectious, neuromuscular conditions of upper and lower limbs, spine, neck and back.
7. Soft tissue injuries and its Physiotherapy management
8. Deformities and its Physiotherapy management
9. Physiotherapy management for amputation
10. Joint replacement surgeries and Physiotherapy management
11. Tendon transfer and Physiotherapy management

12. Manual therapy approaches in common musculoskeletal conditions
13. Ergonomic principles and its application in various musculoskeletal conditions
14. Evidence based Physiotherapy approaches in common musculoskeletal conditions
15. Physiotherapy Assessment and Evaluation procedures in neurological conditions
16. Physiotherapy management of cerebral disorders – Stroke, Cerebral palsy, head injury, Parkinson's disease, Hydrocephalus
17. Physiotherapy management of spinal disorders – Spinal cord injuries, spina bifida
18. Physiotherapy management of peripheral nerve lesions and neuropathies
19. Pre participation evaluation of athletes
20. Components of fitness – Health related, Skill related
21. Biomechanical evaluation of sports
22. Delayed Onset Muscle Soreness – Pathophysiology and management options
23. Female Athletic Triad
24. Physiotherapy management in prevention of Sports injuries
25. Therapeutic modalities in sports injury management
26. Physiotherapy management of acute and overuse sports injuries – upper limb, lower limb, spine
27. Taping and wrapping techniques of upper limb, lower limb and spine
28. Training guidelines for different population
29. Recent advances in assistive technology for mobility and stability – Prescription, training of upper limb, lower limb, cervical and trunk orthosis and prosthesis
30. International Classification of Functioning, International Classification of Impairment, Disability and Handicap
31. Institution based and community based rehabilitation
32. Occupational hazards and measures to prevent it
33. Occupational task analysis and role of Physiotherapists
34. Physiotherapy management related to child bearing year – Antenatal and postnatal care programs
35. Physiotherapy management in Obstetric and Gynecological conditions
36. Physiotherapy management of urinary dysfunction
37. Physiotherapy management in geriatric care
38. Wheelchair types, assessment for prescription and role of Physiotherapist.