

**Department of Physiotherapy
Punjabi University, Patiala
(Established under Punjab Act 35 of 1961)**

Syllabus for Entrance Test for Ph.D (2020-2021)

**SECTION-A
(RESEARCH METHODOLOGY)**

1. **Research Methodology**

Scope, Characteristic and types of research, Census and survey methods of investigation. Hypothesis-Advantages and types.

**SECTION-B
(SUBJECT SPECIFIC)**

1. **Basic Medical Sciences**

Organization and regulation of motor system, control system of body (Motor and sensory), structure and function of musculoskeletal system, cardio vascular, respiratory and endocrinal system.

2. **Exercise Physiology**

Bioenergetics of exercise, nutrition and metabolism, response of exercise to cardio respiratory system, hormonal response to exercise, acid base balance, exercise in metabolic disorders.

3. **Therapeutics**

Principles and methods and advance in exercise therapy. Principles, methods and role of Biomechanics and kinesiology in Physiotherapy, biomechanics of upper limb, lower limb, spine, gait analysis. Principles and methods and advances in electrotherapy. Principles, methods and advances in manual therapy. Principles and methods of orthotics and prosthetics.

4. **Evaluation and Management**

Principles and methods of examination of Musculoskeletal, Nervous, Cardiovascular and Respiratory systems, assessment and documentation, disability evaluation, advances evaluation tools. Physiotherapy management of disorders of Musculoskeletal, Nervous, Cardiovascular and Respiratory systems.

5. **Sample-sampling methods**

Importance, types of sampling (probability and non-probability methods) random, purposive, stratified and convenient.

6. **Biostatistics**

Brief introduction to biostatistics organization of data parametric and nonparametric test, correlation.

7. **Casestudy**

Definition, sources, characteristics, evaluation and scope, advantages, limitations and improvements.