

Pokhara University Teaching Hospital
Curriculum for Physiotherapy officer Level Examination

For Written Examination
Full Marks: 65

There shall be 4 hrs. written examination based on the following syllabus:

Group A: Written Examination

65 Marks

Section I: 10

1. Basic Science

Applied Anatomy

Upper limb, Lower limb, Head and Neck, Trunk, Systemic, Muscular, Skeletal, Nervous Cardio-vascular, Respiratory, Metabolic & Endocrine, Excretory, Reproductive Integumentary system, Radiological anatomy Surface Anatomy.

Physiology

Physiology of Muscular, Skeletal, Nervous, Cardio-vascular, Respiratory, Metabolic & Endocrine, Excretory, Reproductive and Integumentary system

Pharmacology, Pathology, Microbiology, Biochemistry

Pharmacology

Drug allergy, Drug toxicity, Methods of administration, Hormones, Vitamins, Drugs acting on neuromuscular junction and muscles, Drugs acting on cardio-respiratory system, Drugs acting on CNS, PNS, ANS, Chemotherapeutic agents.

Pathology

- Infection/tumors-etiology spreads and types Blood: Anemia, rheumatic and coronary heart diseases Respiratory system: Pneumonia, asthma, bronchitis, bronchiectasis, emphysema Bones and joints disease: auto immune disease, different arthritis, osteomyelitis Skin: leprosy Polio, myopathies, CNS infections and psoriasis

Microbiology

- Sterilization, Bacteriology/virology, Immunity, Allergy and hypersensitivity

Biochemistry

- Metabolism of carbohydrates, vitamins, fats, proteins

Section II: 25

2. Biomechanics and Kinesiology

Basics principles of mechanics including Centre of mass with respect to human body, center of gravity, line of gravity, force, newton's law, friction, stability, equilibrium, levers, active and passive insufficiency, Biomechanics of spine, upper extremity and lower extremity, Biomechanics of posture and its deviations, Biomechanics of gait and its deviations

3. Physiotherapy in Cardio-pulmonology and internal disorders

Clinical Features, Assessment and physiotherapy managements of heart diseases like: malformations, Myocardial ischemia, infarction, heart failure, cor-pulmonale, Arterial and venous diseases Lung conditions like: Pneumonia, atelectasis, ARDS, asthma, COPD, pulmonary edema, Pleural effusion, cystic fibrosis, tuberculosis Physiotherapy in post-operative cases of abdominal, thoracic, cardiovascular surgeries including heart and lung transplant

4. Neurological Physiotherapy

Clinical Features, Assessment and physiotherapy managements of Cerebral vascular accidents, brain injury, spinal cord injury, Tumors, Neuro-degenerative disorders, neuromuscular disorder, Demyelinating disorders, Inflammatory/ infectious condition Cerebellar/ vestibular disorders, Neuropathies, Developmental/ birth injuries e.g. CP, Dementia and other cognitive disorder

Section III: 30

5. Musculoskeletal and sports physiotherapy

Clinical Features, Assessment and physiotherapy managements of Regional conditions of shoulder, elbow, wrist and hand, pelvis and hip, knee, ankle and foot and spine Degenerative and inflammatory condition like osteoarthritis, rheumatoid arthritis, ankylosing spondylitis, gout, peri-arthritis shoulder, spondylosis and spondylolisthesis Infective, metabolic and neoplastic conditions. Tendon transfer Sports injuries, injury prevention and doping, Fractures, amputation and basic concepts of manual therapy

6. Physiotherapy in Obstetrics, Gynecology and Geriatrics

- Pregnancy, stages of labour, complications, and post-partum exercises
- Clinical Features, Assessment and physiotherapy managements of Gynecological disorders- salpingitis, parametritis, retro-uterus, prolapse of uterus, pelvic inflammatory diseases, urinary incontinence Geriatric conditions: Musculoskeletal disorder, Cardiopulmonary disorder, Neurological disorders, Dementia, depression

7. Physiotherapy in Pediatrics

Clinical Features, Assessment and physiotherapy managements of Congenital and acquired pediatric conditions in Cardio-respiratory, Musculoskeletal and neurological disorders Developmental disorder, learning disorders, burns, vitamins deficiency.

8. Ethics and evidence-based practice

- Ethics

Ethics and professionalism Standard of practice, competency Evidence based practice and research Importance and process of evidence-based practice Introduction to research process, research design, sampling, structure of a research proposal

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For Practical Examination

Full Marks: 35

Practical examination based on the following syllabus:

Group B: Practical Examination

35 Marks

1. Postural assessment and gait analysis and electrotherapy modalities

2. Exercise prescription

- Healthy individuals: Elderly, adult and children
- Individual with pathology
- Palliative care

3. Musculoskeletal

- Orthopedic assessment
- Stump management after amputation, special tests of upper and lower limb, mobilization of upper and lower limb joint
- ICF based physiotherapy management of general orthopedic conditions

4. Cardiopulmonary and internal disorders

- Postural drainage, cardiac and pulmonary rehabilitation, techniques to improve secretion clearance
- Techniques to improve lung volume,

5. Neurology

Assessment and rehabilitation of basic neurological condition
