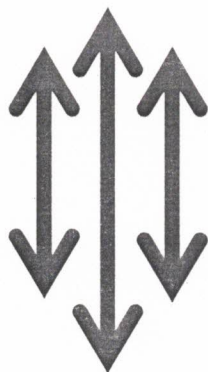
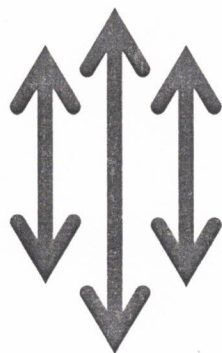


नेपाली सेना  
श्री भर्ना छनौट निर्देशनालय, कार्यरथी विभाग,  
जंगी अड्डा



प्रा.उ.से. फ़िजियोथेरेपिस्ट (आन्तरिक) पदको लिखित  
परीक्षाको पाठ्यक्रम



२०७८

## नेपाली सेना

### प्रा.उ.से. फिजियोथेरेपिस्ट (आन्तरिक) पदको लिखित परीक्षाको पाठ्यक्रम

समय: ४ घण्टा १५ मिनेट

पूर्णाङ्क : १५०

उत्तीर्णाङ्क : ६०

यो पाठ्यक्रम नेपाली सेनाको प्रा.उ.से. फिजियोथेरेपिस्ट (आन्तरिक) पदको उम्मेदवार छनौट परीक्षाको लागि निर्धारण गरिएको हो । लिखित परीक्षामा सरिक हुने उम्मेदवारहरूको पेशा सम्बन्धी विषयलाई आधारमानी प्रश्नहरू सोधिने छ ।

- (क) लिखित परीक्षाको माध्यम नेपाली/अंग्रेजी वा दुवै भाषा हुनेछ ।
- (ख) लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरूलाई मात्र अर्को चरणको परीक्षामा सम्मिलित गराईनेछ ।
- (ग) प्रश्नपत्र निर्माण गर्दा पाठ्यक्रममा समावेश भएका सबै विषयहरूलाई यथासंभव समित्नेछ ।
- (घ) बस्तुगत र विषयगत संयुक्त रूपमा पूर्णाङ्क र उत्तीर्णाङ्क कायम गरिनेछ ।
- (ङ) बस्तुगत र विषयगत परीक्षाको पाठ्यक्रम एउटै हुनेछ ।
- (च) बस्तुगत र विषयगत विषयको लिखित परीक्षा एकैपटक वा छुट्टाछुट्टै गरी लिन सकिनेछ ।
- (छ) यो पाठ्यक्रम मिति २०७८/११/२२ गतेबाट लागु हुनेछ ।

### लिखित परीक्षाको योजना र पाठ्यक्रम

विषय	पूर्णाङ्क	उत्तिर्णाङ्क	परीक्षा प्रणाली		प्रश्न संख्या अङ्क	समय
पेशा सम्बन्धि	७५	६०	बस्तुगत (Objective)	बहु वैकल्पिक प्रश्न (MCQs)	७५ प्रश्न x १ अङ्क=७५	१ घण्टा १५ मिनेट
	७५		विषयगत (Subjective)	छोटो उत्तर	९ प्रश्न x ५ अङ्क = ४५	३ घण्टा
				लामो उत्तर	३ प्रश्न x १० अङ्क = ३०	

१५५) १५५५ १५५५ १५५५ १५५५

प्रा.उ.से. फ़िजियोथेरेपिस्ट (आन्तरिक) लिखित परीक्षाको पाठ्यक्रम

**1. Human Anatomy:**

1. Gross musculoskeletal system including Bone, Muscles, Joints, Ligaments and other soft tissues of upper limb, lower limb, trunk, pelvis, Head and neck.
2. Gross Anatomy of nervous system: subdivisions and their functions, neurons, nerve fibers and synapses
3. Gross anatomy of skin, fascia, muscles, joints, heart, stomach, intestines, liver, and gallbladder, lungs, spleen, kidneys, uterus, ovary, testes, pituitary, thyroid, parathyroid and adrenal glands.
4. Gross anatomy and organization of various systems: gastrointestinal and hepatobiliary, respiratory, cardiovascular, genitourinary and reticulo-endothelial system.

**2. Human Physiology and Biochemistry:**

1. Neurophysiology: sensory receptors, cerebellum and basal ganglia, Spinal Tracts
2. Reproduction: Functions of male and female gonads.
3. Cardiovascular system: mechanical and electrical properties of heart, regulation of cardiovascular functions.
4. Gastro intestinal and hepatobiliary system: digestion and absorption of fats, metabolism of carbohydrates.
5. Respiration: Pulmonary Circulation, Respiratory changes during exercise.
6. Endocrine: structure and functions of Endocrine Glands.
7. Special Sensory Organs: Eye, Tongue, Ear
8. Renal physiology: tubular function, regulation of pH.
9. Nucleic acids: RNA, DNA, genetic code and protein synthesis.
10. Fluids and electrolytes balance and their regulation

**3. Pathology and Microbiology:**

1. Inflammation and Repair: Features, causes, types and classifications of Acute and Chronic Inflammations, Wound Healing
2. Infectious Disease: TB, Leprosy, Polio
3. Circulatory Disturbances: Ischemia, Hemorrhage, Edema, Thrombosis, Embolism and Shock
4. Growth Disturbances and Neoplasia: Atrophy, Hypertrophy, Hyperplasia, Aplasia, Hypoplasia, Metaplasia, Malformation, agenesis, dysplasia.
5. Routes of infection and spread; endogenous and exogenous infections; source at reservoir of infections.
6. Sterilization, disinfection and universal precautions in relation to patient care and disease prevention

**4. Pharmacology:**

1. General Pharmacology: Classification of drugs, Sources of drugs, Routes of drug administration, Metabolism and Excretion of drugs, Factors modifying drug response, adverse effects.
2. Steroids and NSAIDS, Central and Peripheral acting muscle relaxants

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## 5. Biomechanics

1. Kinetics and kinematics
2. Biomechanics of peripheral joints, spine, thorax, temporomandibular joint
3. Analysis of Posture and Gait
4. Movement Analysis
5. Goniometry and Waling Aids

## 6. Therapeutic Exercises

1. Range of motion, Manual Muscle Testing, Relaxation, Active and Passive Movements, Types of Exercises, Exercise regimen, Aerobic Exercises
2. Proprioceptive Neuromuscular Facilitations, Functional Reeducation, Stretching,
3. Balance, Coordination, Posture, gait, Hydrotherapy, massage

## 7. Electrotherapy

1. Burns: electrical & chemical burns, prevention and management.
2. Therapeutic Currents: Characteristics, classifications, physiological effects, therapeutic effects, dangers, indications and contraindications of Low frequency, medium Frequency and High Frequency currents.
3. Thermotherapy: characteristics, physiological effects, therapeutic effects, dangers, indications and contraindications and methods of application of SWD, MWD, IRR, Wax, Hydro collar, Ultrasound, UVR, Laser, Contrast bath, Cryotherapy

## 8. Medicine and Surgery:

1. **Respiratory Diseases:** Acute Bronchitis, Chronic Obstructive Airway Disease, Bronchial Asthma, Pneumonias, Tuberculosis, Bronchogenic Carcinoma, Bronchiectasis, Occupational Lung Diseases, Respiratory Failure, SARS, Pleural effusion, Pneumothorax
2. **Cardiovascular Diseases:** Rheumatic Fever, Rheumatic Heart Disease (MS, MR, AS, AR), Congestive Cardiac Failure, Acute LVF, Ischemic Heart Disease, Myocardial Infarction, Hypertension, Infective Endocarditis, Congenital Heart Diseases, Cardiomyopathies, Cor pulmonale, Cardiac arrhythmias, Cardiogenic Shock
3. **Neurological Diseases:** Cerebro-Vascular Accident, Meningitis, Encephalitis, Parkinson's Disease, Paraplegia, Multiple Sclerosis, Myasthenia Gravis, Epilepsy, Neuro-cysticercosis, Bell's palsy, GBS, Neurosyphilis, Coma, Headache, Spina bifida, Neurogenic Shock, Cerebral Malaria
4. **Endocrine and Metabolic Diseases:** Diabetes Mellitus, Non-ketotic Coma, Ketoacidosis, Thyrotoxicosis, Hypothyroidism, Cushing's Syndrome, Addison's Disease, Hyperparathyroidism, Tetany, Hypogonadism, Diabetes Insipidus
5. **Surgery:** Burn, Pulmonary Embolism, Lung Abscess, Bronchogenic Carcinoma, Breast abscess and Carcinoma breast, Wound, Chest wall deformities, chest wall tumors, Neoplasm of the trachea, Carcinoma of the female breast.
6. **Obstetrics and Gynecology:** Antenatal, Natal and Postnatal care, Stages of labor, Retained Placenta, Ruptured Uterus, Genital prolapsed, Family Planning
7. **Orthopedics :** Fracture and dislocations of upper limb, lower limb and Spine, Soft tissue Injuries and amputations




## 9. Musculoskeletal and Sports Physiotherapy

1. Physiotherapy assessment and management of fractures and dislocations of bones and joints of upper limb, lower limb and spine
2. Physiotherapy assessment and management of soft tissue injuries and Sports injuries  
Selection and application of physiotherapeutic techniques, maneuver's, modalities for preventive, curative and rehabilitative means in all conditions
3. Physiotherapy assessment and management of degenerative, infective and inflammatory orthopedic conditions
4. Congenital and Acquired Deformities: assessment, medical, surgical and physiotherapy management
5. Amputation, leprosy, poliomyelitis: assessment, medical, surgical and physiotherapy management
6. Joint Replacements: assessment, medical, surgical and physiotherapy management

## 10. Neurology and Neurosurgery Physiotherapy

1. Evaluation and Management of Brain and Spinal Cord Disorders
2. Evaluation and Management of Cerebellar, Spinal Cord and Muscle Disorders
3. Evaluation and Management of Peripheral Nerve Injuries and Disorders
4. Pre and Post surgical assessment and treatment following neurological disorders

## 11. Cardio-Respiratory Physiotherapy

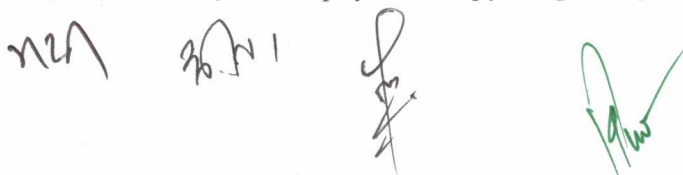
1. Physiotherapy techniques to increase lung volume – controlled mobilization, positioning, breathing exercises, Mechanical aids -Incentive Spirometry
2. Physiotherapy techniques to decrease the work of breathing – Measures to optimize the balance between energy supply and demand, positioning, Breathing re-education – Breathing control techniques
3. Physiotherapy techniques to clear secretions – Hydration, Humidification & Nebulisation, Mobilization and Breathing exercises, Postural Drainage, Manual techniques – Percussion, Vibration and Shaking, Rib Springing, Facilitation of Cough and Huff, Nasopharyngeal Suctioning
4. Pulmonary and cardiac Rehabilitations
5. Peripheral vascular Diseases and Physiotherapy
6. Burns management
7. ACLS, BLS, ATLS

## 12. Community Based Rehabilitations

1. Concept of CBR, Need for CBR, Difference between Institution based and Community based Rehabilitation, Objectives of CBR, Scope of CBR, Members of CBR team, Models of CBR
2. Disability: Impairment, Handicap and Disability, Difference between impairment, handicap and disability, Causes of disability, Types of disability, Prevention of disability, Role of Physiotherapy in CBR
3. Screening and rehabilitation of pediatric disorders in the community

## 13. Acts related to Health and Medical Profession:

Nepal Health Services Act, Nepal Health Service Regulation, National Health Policy, Nepal Health Professionals Act, World physiotherapy, Nepal Physiotherapy Association,



माथि उल्लेखित पाठ्यक्रमका एकाइहरूबाट सोधिने प्रश्नहरूको संख्या निम्नानुसार हुनेछ

Section number	MCQs number	Long answer question	Short answer question
1.	10	-	-
2.			
3.			
4.			
5.	25	1 x 10 = 10	3 x 5 = 15
6.			
7.			
8.	10		1 x 5 = 5
9.	30	2 x 10 = 20	5 x 5 = 25
10.			
11.			
12.			
13.			
Total	75 x 1 = 75	3 x 10 = 30	9 x 5 = 45

प्रा.उ.से. फिजियोथेरेपिस्ट (आन्तरिक) पदको प्रयोगात्मक परिक्षाको पाठ्यक्रम

समय : ६० मिनेट

पूर्णाङ्क: ५०

उत्तीर्णाङ्क: २५

SN	Topic	Full marks	Time
1	History taking	5	10
2	Examination of patient	9	10
3	Treatment Goal	3	5
4	Therapeutic Interventions	15	15
5	Communications	3	5
6	Viva	15	15
Total		50	60

The End

२५/११/२०२१