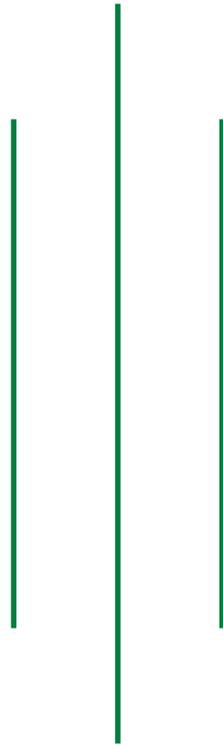


# **Syllabus for Licensing Examination of Bachelor of Physiotherapy 2021**



**Nepal Health Professional Council**

Bansbari, Kathmandu

## Table of Content

S.n.	Topics	Marks
1	Anatomy	10%
2	Physiology	10%
3	Microbiology,pathology, Biochemistry, Pharmacology	5%
4	Exercise therapy	10%
5	Electrotherapy	10%
6	Biomechanics	5%
7	Orthopaedics and sports physiotherapy	10%
8	Neurological physiotherapy	10%
9	Cardiothoracic vascular physiotherapy	10%
10	Pediatrics , Geriatrics physiotherapy	10%
11	Burn and plastic surgery and Gynecology physiotherapy	10%
	Total	100%

## 1) Applied Anatomy

### A) Learning objectives

- i) Regional (bones ,muscles, joints nerves , lymphatics , surface anatomy)
  - a) Upper limb
  - b) Lower limb
  - c) Head
  - d) Neck
  - e) Trunk
  - f) Thorax

### B) Systemic

- a) Muscular
- b) Skeletal
- c) Nervous
- d) CVS
- e) Respiratory
- f) Skin structure

## 2) Applied physiology

### Physiology of following system

- a) Muscle
- b) CVS
- c) Respiratory
- d) Nervous
- e) Blood
- f) Skin

## 3) Microbiology,pathology,Biochemistry,Pharmacology

- a) **Microbiology** : Bacteriology Virology, Immunity
- b) **Pathology** : cell repair, inflammation ,tumor, bone joint diseas- auto immune different arthritis ,osteomillitis
- c) **Biochemistry** : metabolism of vitamins, carbohydrats , vitamin
- d) **Pharmacology**: vitamins , hormones, drug acting neuromuscular junctions , muscles ( Eg NSAIDS , MUSCLE RELAXATION ), Drugs acting- CNS,PNS

#### 4) Exercise therapy

- a) Therapeutics exercise for technique , uses ,advantage ,indication ,contra-indication ,precaution
  - i) Spine & Peripheral joint mobilization
  - ii) Strengthening and stretching exercises
  - iii) Resistive technique and position ,ROM of joints ,PNF
  - iv) Cardio -respiratory exercises
  - v) Hydrotherapy
  - vi) Postural ergonomics
  - vii) MMT,Limb GIRTH ,lenth

#### 5) Electro therapy\_

Therapeutics modalities -uses ,advantage ,indication ,contra-indication, precaution, application methods

- i) Faradic & galvanic current
- ii) Ultrasound
- iii) Swd ,mwd ,
- iv) Tens, IFT
- v) Cryotherapy
- vi) Shockwave therapy , laser , UVR,
- vii) Contrast bath , moist heat,Iontophoresis

#### 6) Biomechanics and Kinesiology

- i) Basics principles of mechanics including Centre of gravity, line of gravity, force, newton's law, friction, stability, equilibrium, levers etch
- ii) Biomechanics of spine, upper extremity and lower extremity
- iii) Biomechanics of posture and its deviations
- iv) Biomechanics of gait and its deviations

#### 7) Rehabilitation in Musculoskeletal and Sports: (Clinical condition and different exercises regimes, therapeutic modalities and equipments, diagnostic tests , prosthetics and orthotics used for the management of the condition)

Muscle contusion/strain/ ligament sprain/tear/weakness , Pelvic floor dysfunction Tendinopathy, tendon tear/ rupture/ tendonosis , Joint derangement/dysfunction,

fracture, dislocation, subluxation , Degenerative joint diseases, osteoporosis, osteopenia Amputation ,Congenital malformation , Sports injuries ,DOMS, Mechanical spinal abnormalities , Inflammatory/infectious conditions peripheral nerve injuries, hemophilia

#### **8) Rehabilitation in neurology : (Clinical condition and different exercises regimes, therapeutic modalities and equipments, diagnostic tests , prosthetics and orthotics used for the management of the condition)**

Cerebral vascular accident ,Acquired brain injury, spinal cord injury ,Tumors ,Degenerative neurological/neuromuscular disorder , Demyelinating disorders , Inflammatory/ infectious condition , Cerebellar/ vestibular disorders, Neuropathies , , Dementia and other cognitive disorder

#### **9) Rehabilitation in cradio-thoracic (Clinical condition and different exercises regimes, therapeutic modalities and equipments of the condition )**

Heart diseases, injury , Myocardial ischemia, infarction, heart failure, cor-pulmonale , Pneumonia, atelectasis, ARDS, asthma, COPD, pulmonary edema , Arterial and venous diseases , Pleural effusion, cystic fibrosis, tuberculosis

#### **10) Rehabilitation in Peadiatric and Geriatrics physiotherapy**

- i) **Peadiatric:** Developmental disorder, learning disorders, burns, vitamins deficiency, Congenital and acquired musculoskeletal, neurology disorders
- ii) **Geriatrics:** Musculoskeletal disorder ,Cardiopulmonary disorder, Neurological disorders, Burns, nutritional disorders , Dementia, depression,

#### **11) Burn and plastic surgery and Gynecology physiotherapy rehab**

- i) Burns,wounds, ulcer, obesity, post Tendon repair
- ii) Pelvic inflammatoty diseses , pre-post pregnancy and c-section , urine incontinence, prolapsed of uterus