Subject: Syllabus for the written test for the post of Demonstrator (Physiotherapy) and Tutor (Nursing) against Advt. No. SVSU/2026/Estt./Cont./010

It is hereby informed, that the detailed syllabus for the below mentioned posts against Advt. No. SVSU/2026/Estt./Cont./010 is being uploaded on the University website for the information of the candidates.

S. No.	Posts	Enclosures
1.	Demonstrator (Physiotherapy)	Annexure -A
2.	Tutor (Nursing)	Annexure -B

Sd/-
Assistant Registrar
(Establishment Branch)

Annexure - A

Syllabus for written test for the post of Demonstrator (Physiotherapy) – Contractual

Unit-I (ANATOMY) : General Anatomy, Musculoskeletal system, Upper and lower extremity, Spine and thorax, Head and neck, Nervous system, Sensory system, Cardiovascular system, Lymphatic system, Respiratory system, Digestive system, Urinary and Reproductive system, Endocrine system

Unit-II (PHYSIOLOGY) : General Physiology, Blood, Cardiovascular system, Respiratory System, Nerve Muscle Physiology, Nervous, Digestive & Renal System, Endocrinology, Male & female reproductive system

Unit-III (CLINICAL BIOCHEMISTRY) : Nutrition, Carbohydrates, Lipids, Amino Acids, Proteins, Study of hemoglobin and myoglobin with their functions, Enzymes, Biochemistry of connective tissue, Vitamins, Diabetes mellitus

Unit-IV (GENERAL PSYCHOLOGY):- Introduction to Psychology, Fields of application of Psychology, influence of heredity and environment on the individual, Learning, Memory, Thinking, Motivation, Emotions, Attitudes, Intelligence, Personality, theories of personality, factors influencing personality, Personality Disorders, Conflict and frustration, Attention and Perception, Counseling, Development and growth of behavior in infancy and childhood, adolescence, adulthood and old age, normal and abnormal, Psychotherapy, Mental efficiency

Unit-V (ETHICS IN PHYSIOTHERAPY) :- ETHICS- History of physiotherapy, Ethical principles in health care, Ethical principles related to physiotherapy, Scope of practice, Enforcing standards in health profession-promoting quality care, Professional ethics in research, education and patient care delivery, Informed consent issues, Medical ethics and Economics in clinical decision-making, Rules of professional conduct ,Confidentiality and Responsibility, Malpractice and negligence, Provision of services and, advertising, Legal aspects.

Unit-VI (BIOMECHANICS AND KINESIOLOGY) :- Mechanics, Motion, Force, Friction, Gravity, Equilibrium, Levers, Pulleys, Elasticity, Springs, Muscular system, Definition, properties of muscle, muscular contraction, structural classification, action of muscle in moving bone, direction of pull, angle of pull, functional classification, coordination of muscular system, Joint structures and functions, Posture, Gait

Unit-VII (EXERCISE THERAPY – I) :- Introduction to exercise therapy, Mechanical principle applied in human body, Disability models, Movements, Passive & active movements, Starting positions, Relaxation, Suspension, Balance, Neuromuscular coordination, Joint range measurement, Measurement of limb length, girth, Manual muscle testing, Mobility aids, Soft tissue manipulation (massage)

Unit-VIII (ELECTRO THERAPY – I) :- Basic components of electric current, Current electricity, Magnetism, theories of magnetism, properties of magnet, Electromagnetic induction, electromagnetic radiation, laws governing radiations, Electrical components, Types of electric current, wave forms, current modulation, Safety issues while using electrical equipments, Muscle and nerve response to electrical stimulation, Pain, Low frequency currents, Electro diagnostic test, Interferential therapy (IFT)

Unit-IX (MEDICAL MICROBIOLOGY) :- Introduction & History of Microbiology, . Classification of microorganism, Bacteriology, Bacterial growth/Reproduction, Sterilization & disinfection, Modes of transmission of diseases, Bacterial diseases (in brief), Viral diseases (in brief), Fungal diseases and opportunistic infections (in brief), Immunity, AIDS - Aetiology, modes of transmission, diagnostic procedure, Handling of infected material.

Unit-X (PATHOLOGY) :- Introduction to Pathology, Cell injuries, Inflammation and Repair, Circulatory Distrurbances, Growth Disturbances and Neoplasia, Hematology, Respiratory System, Cardiovascular Pathology, Hepato Biliary Pathology, Musculoskeletal System, Endocrine pathology, Neuropathology, Dermatopathology, Congenital Myopathy &mysthenia gravis.

Unit- XI (PHARMACOLOGY) :- General Pharmacology, Autonomic Nervous system, Cardiovascular Pharmacology (in brief), Neuropharmacology (in brief), Disorders of Movement (in brief), Inflammatory/Immune Diseases, Respiratory Pharmacology (in brief), Digestion and Metabolism (in brief), Geriatrics

Unit- XII (EXERCISE THERAPY – II) :- Joint mobilization, Stretching, Resisted exercise, Proprioceptive Neuromuscular Facilitation, Aerobic Exercises, Hydrotherapy, Balance training, Posture Breathing Exercises, Gait Training, Soft Tissue Injury, Yoga: History, Introduction, Classification, Various Asana

Unit- XIII (ELCTROTHERAPY – II) :- Introduction to high frequency current, Electro Magnetic Spectrum, SWD, Micro Wave Diathermy, Ultrasound, IRR, UVR, LASER, Wax Therapy, Contrast Bath, Moist Heat Therapy, Fluidotherapy, Cryotherapy, EMG and Nerve Conduction Velocity test, Biofeed back

Unit- XIV (ORTHOPAEDICS) :- Introduction to Orthopaedics, Injuries of muscle & tendons, Bony & Soft tissue injuries, Fractures, Inflammation of bones & joints (Clinical features, evaluation, conservative & surgical management), Nutritional & metabolic diseases of bones, Spine deformities, Infections of Musculoskeletal system, Congenital malformations (in brief description with outline of treatment), Developmental diseases of skeleton, Neuromuscular diseases, Upper & lower Limbs, Neuro-vascular Diseases, Amputations, Bone tumors, Operations, Othopaedic splints and appliances, Tractions : Skin, skeleton (in brief), Foot arches & their complications, Rehabilitation of patients.

Unit-XV (GENERAL MEDICINE INCLUDING PEDIATRICS & PSYCHIATRY) :- Introduction, Infectious Diseases, Nutritional & Metabolic Diseases, Alimentary tract, Brief description of liver diseases along with outline of management, Diseases of connective tissues, Diseases of skin, Geriatrics, First Aid in common Medical Emergencies, Cardio-vascular System, Respiratory System, Neurology, Developmental and degenerative syndromes, Disorders of Spinal cord and Cauda Equina, Peripheral nerve disorders, Muscle disorders

PEDIATRICS :- Normal Growth and development of child, Common infectious diseases in children, Immunization programmes, Child and nutrition, Clinical presentation, management & prevention of the following, Childhood rheumatism, Acute CNS infections, Clinical presentation, management &prevention of the following respiratory conditions, Clinical presentation, management & prevention of the following cardiac conditions

PSYCHIATRY :-Modalities of psychiatric treatment, Psychiatric illness and physical therapy link, Brief description of Etio-pathogenesis, manifestations, and management of psychiatric illnesses, Brief description of Etio-pathogenesis, manifestations, and management of psychiatric illness, Child psychiatry, Geriatric Psychiatry (in brief)

Unit-XVI (GENERAL SURGERY) :- Fluid, Electrolyte and Acid-Base disturbances, Transfusion therapy in surgery, Wounds, Pre & postoperative complications of surgery and their management, Hemostasis, Types of anaesthesia and its affects on the patient, pain relief, Types of Incisons, Burn, Skin Grafts, Infections and injuries of Hand, Surgical Oncology – Cancer, Disorders of muslces, tendons and ligaments, sports related injuries, Periarticular inflammations actemuslce injury, chronic muscles injury, Tendon disorders, tendon sheath disorder, fascia, Ganglia, Bursae, Repeatative strain injury,

Neurological disorder affecting to muscle-skeletal system , Motor dysfunction and treatment, cerebral palsy, acquired abnormalities, inherited disorder, neuromuscular disorder, sensory disorder, The cranium, Thoracic and cardiac surgery, Various surgical heart diseases with respect to clinical presentation, complications and management, Diseases of the Arteries and Veins, Definition, Indication, Incision, Physiological changes and Complications following Common operations like Cholecystectomy, Colostomy, Ileostomy, Gastrectomy, Hernias, Appendicectomy Mastectomy, Nephrectomy, Prostectomy, Obstetrics & Gynecology, ENT, Ophthalmology

Unit-XVII (COMMUNITY MEDICINE) :- Health and Disease, Epidemiology, definition and scope, Principles of Epidemiology and Epidemiological methods, Epidemiology of communicable disease, Public health administration, Health programs in India, Demography and Family Planning, Preventive Medicine in Obstetrics, Paediatrics and Geriatrics, Nutrition and Health, Environment and Health, Hospital waste management, Disaster Management, Occupational Health, Mental Health, Health Education.

Unit-XVIII (RESEARCH METHODOLOGY AND BIOSTATISTICS) :- RESEARCH METHODOLOGY - Introduction to Research methodology, Research problem, Research design, Measurement & scaling techniques, Methods of data collection, Computer technology

BIOSTATISTICS- Introduction, Tabulation of Data, Measures of Central Tendency, Measures of Dispersion, Probability and Standard Distributions, Correlation & regression, Testing of Hypotheses , Level of significance, Degrees of freedom, Chi-square test, test of Goodness of fit & student t-test, Analysis of variance & covariance, Sampling,

Unit-XIX (PHYSIOTHERAPY IN ORTHOPEADIC AND SPORTSCONDITIONS) :-

1. **Traumatology:** Brief review of the following condition and various management aims, physiotherapeutic intervention, means and technique of physiotherapy should be taught including Kalternborn, Maitland, Mulligan, Mckenzie etc.

A. **Bony Tissue**

1. Fracture and dislocations: Classification and type of displacement, method of immobilization, healing of fractures and factors affecting union, non union, delayed Union etc., common sites of fractures and their general physiotherapeutic management.
2. Specific fractures and their physiotherapeutic management.
   a) Upper limb: Clavicle, humerus, ulna, radius, crush injuries of hand.
   b) Lower Limb: fracture neck of femur, shaft of femur, patella, tibia fibula, pott's fracture, fracture of tarsal and metatarsals.
   c) Spine: fracture and dislocations of cervical, thoracic and lumbar vertebrae with and without neurological deficits.

B. **Soft tissue injuries:**

Synovitis, Capsulitis, Tendonitis and other tendon injuries around wrist, elbow, knee, shoulder, ankle, Bursitis, volkman's ischemic contracture, Tear of semilunar cartilage, menisectomy, Injury to cruciate ligaments of knee, Internal derangement of knee, and other overuse injuries important for a Physiotherapist.

2. **Surgical procedures:**

Pre and post operative physiotherapy management of common corrective procedure like arthroplasty, arthrodesis, osteotomy, patellectomy, tendon transplants, soft tissue release,grafting, including post polio residual paralysis and leprosy deformities corrections,Amputation: Level of amputation of upper limb and lower limb, stump care, stump bandaging, Pre and post operative physiotherapy management, pre and post prosthetic management including check out of prosthesis, training etc.

3. **Deformities:** Etiology, pathology, clinical presentation, diagnostic criterion general, orthotic, and Physiotherapy Management of the following: Congenital torticollis, Cervical rib, CTEV, Pes cavus , Pes planus and other common congenital deformities, Scoliosis, Increased and decreased Kyphosis, increased & decreased Lordosis, Coxa vara, Genu valgum, Genu varum and recurvatum.

4. **Degenerative and infective conditions:** Etiology, pathology, clinical presentation, diagnostic criterion, general, orthotic, and Physiotherapy Management of the following: osteoarthritis of major joints, Spondylosis, Spondylitis, Spondylolisthesis, PIVD, Periarthritis of shoulder, Tuberculosis of spine, bone and major joints, and other miscellaneous orthopaedic conditions treated by Physiotherapy.
5. **Arthritis and Allied conditions (in details):** Etiology, pathology, clinical presentation, diagnostic criterion general, orthotic, and Physiotherapy Management of the following: Osteo- Arthritis-generalized, Degenerative and traumatic, Rheumatoid Arthritis, Still's disease, infective Arthritis, Spondylitis, ankylosing spondylitis, Non articular Rheumatism, Fibrositis, trigger point, fibromyalgia, Perthes disease, Ganglion, Duputuren's contracture
6. Etiopathogenesis and physiotherapy and general management of the Edema-Traumatic, Obstructive, position dependent and Paralytic.
7. **Deficiency disease-** Rickets, Osteomalacia, Osteoporosis and other deficiency disorders related to Physiotherapy their clinical presentation, etiopathogenesis, management strategies including physiotherapy interventions.
8. **Sports Physiotherapy**
   Principle of sports physiotherapy, Causes of sports injury, Prevention of sports injuries, Management of acute sports injury, Common occurred injuries, Role of physiotherapist in sports principle and advanced rehabilitation of the injured athlete.

Unit-XX (PHYSIOTHERAPY IN NEUROLOGICAL CONDITOINS) :-

A. Review of Clinical Neuroanatomy & Neurophysiology:

Review, the structure and function of a) neuron b) synapse c) supporting tissue, Review the organizationand function of a) cerebral hemispheres b) cerebellum c) spinal cord d) peripheral nerves e) pyramidalsystem f) extra pyramidal system. Review the factors influencing alpha motor neuron activity. Review theneurological basis of muscle tone and movement and demonstrate the following: a) hypertonia b)spasticity and rigidity c) ataxia d) athetosis e) chorea

B. Principles of Assessment

Review a) skill in history taking b) assessment of higher functions, cortical sensations, cranial nerves,dorsal column sensation and pain & temperature sensations c) assessment of motor function: grading ofmuscle power, assessment of range of movement, balance and coordination d) assessment of superficialand deep reflexes e) assessment of reflex maturation in terms of stimulus, position negative/positivereaction and their significance f) assessment of gait- both normal and abnormal (spastic, ataxic andparalytic patterns) Emphasis should be placed on teaching accurate assessment techniques and variousrecording methods e.g. color coding on body charts, graphs etc.

C. Principles of Treatment

Review the treatment principles as follows:-

Sensory re -education: hypersensitivity, hyposensitivity and anesthesia, Treatment of altered tone: hyper tonicity and hypo tonicity, Motor re-education: Strengthening exercise, coordination exercise, joint mobilization exercise, use of equilibrium and labyrinthine systems, use of PNF patterns, controlled sensory stimulation to bias the spindle cells e.g. Vibration, tactile, ice etc. use of stretch to elicit movement (facilitation), light joint compression (inhibition) use of rifle, activity to improve motor function, phylogenic sequence of motor behavior, Treatment to improve function: Free exercise, gait training with and without aids, activities of daily living, mat exercise, exercise for recreation, Review the use of ambulatory aids in neurological conditions: In spastic upper motor neuron lesions, In lower motor lesions, in dorsal column dysfunction and cerebral dysfunction, Review the use of splints and braces in spastic upper motor neuron and in flaccid lower motor neuron lesions, in both upper and lower limbs, Review the management of chronic pain in neurological conditions with respect to the type of pain, treatment modalities available, selection criteria for each modality and possible complications.

D. Cerebral Palsy

Define cerebral palsy and describe the topographical classification, monoplegia, diplegia, paraplegia, hemiplegia& tetraplegia, Describe types of cerebral palsy. Assess reflex activity at different levels: Cortical, mid brain, brain stem,spinal. Assess developmental milestones from birth to five years, Assess functional ability: Prone to supine(rolling) Coming to sitting, quadruped, crawling, kneeling, kneel-stand, stand with support and walking, Examine for contractures as follows: hip flexion,

adduction, internal rotation: Knee flexion: ankle plantar, flexion, inversion, eversion. Flexion contracture of elbow, wrist & fingers and spinal deformities, Treatment - Describe and demonstrate the treatment motor dysfunction: Passive movement, stretching ofsoft tissue tightness, use of ice to reduce spasticity, positioning the child to prevent soft tissue contractures,to inhibit abnormal reflexes and to facilitate volitional movement. Describe and demonstrate techniques ofcarrying of different type of CP children, encouraging bimanual activities in different starting positionslike prone sitting and standing and activities across the midline. Describe appropriate home programmesfor positioning the child, handling them and assisting improvement of function. Introduction to treatmenttechniques: Bobath, Rood.

E. Peripheral Nerve Lesions

Identify type of peripheral nerve lesions. Assess the motor 'system: Specific muscles. Range of motion,active and passive ranges, muscle girth. Assess sensory system: touch, pain, temperature, par aesthesia,nerve reverberation. Assess autonomic function: sweating, skin condition, soft tissue atrophy. Treatment:describe muscle reeducation techniques: electrical stimulation (selection of current): active, assisted,resisted movements: Passive and self assistive stretching and massage. Describe sensory reeducation andpain relief by various modalities; describe the common splints used peripheral nerve lesions. Static,dynamic and functional. Isolating muscle contraction, specific muscle strengthening.Post- Operative management: Pressure bandaging reeducation after transfer. Describe a home programme.

F. Neuro Muscular Diseases

1. Amyotrophic Lateral sclerosis: introduction, etiopathology, clinical sign & symptoms, impairments, disabilities,evaluation Procedure, physiotherapy management.

2. Demyelinating inflammatory polyradiculoneuropathies: Introduction, etiopathology, clinical sign & symptoms, impairments, disabilities, evaluation procedure & physiotherapy management.

3. Muscular Dystrophy: Describe stages of the disease: ambulatory, wheelchair and bed stages. Describe significance of exercise resisted, active and free. Identify and assess common contractures anddeformities. Assess range of motion and muscle power. Assess functional ability.

Demonstrate treatment program for strengthening weak muscles:

Active movements and hydrotherapy. Increase range of motion by suspension therapy, powder board, passive stretching positioning etc.

Demonstrate gait training with appropriate orthoses, Describe management of chest complication breathing exercises chest percussion, drainage of secretions and assisted coughing.

G. Basal Ganglion disorders:

Introduction to the function of basal Ganglion, relation with posture and movement.

i. Parkinsonism: Review the natural history, course and prognosis of the disease. Identify and assess problems in posture sitting, kneeling and standing balance, voluntary and automatic movements rigidity. Tremor and gait. Assess also hearing, speech and finger dexterity. Describe disability grading according to Yulu. Demonstrate treatment: postural awareness and relaxation training. Gait training techniques: associated reactions, heel-toe gait, overcoming obstacles, start and stop on command, turning and walking backwards, forwards and sideward. Describe an appropriate home exerciseprogramme.

ii.Huntingtons Diseases: etiopathology, sign& symptoms, stages, examination procedure,physiotherapist treatment goals and treatment techniques.

iii. Wilsons Diseases: etiopathology, sign& symptoms, stages, examination procedure, physiotherapist treatment goals and treatment techniques.

iv. Tardive Dyskinesia :etiopathology, sign& symptoms, stages, examination procedure, physiotherapist treatment goals and treatment techniques.

v. Dystonias :etiopathology, sign& symptoms, stages, examination procedure, physiotherapist treatment goals and treatment techniques.

H. Spinal Cord Lesions:

Describe types of spinal cord lesions. Describe sign of tract and root

Interruptions. Describe positioning of the patient in acute spinal cord injury, Describe assessment of themotor system: tone, power of specific muscle range of motion and limbs girth. Describe assessment ofsensory system and reflexes.Describe assessment of functional ability and balance reactions in appropriate cases. Describe assessmentof respiratory function. Muscles of respiration, coughing ability and vital capacity. Describe how thelevel of lesion is ascertained.Treatment: Describe the stages of immobilization & stage when weight bearing is allowed, Describespinal orthosis. Demonstrate motor reeducation programmes and programme for respiratory care in highlevel paraplegics and

quadriplegics. Demonstrate progressive ambulation, mat exercises, variousstrengthening programmes, methods of decreasing spasticity and improving sitting balance. Demonstrateparaplegic gaits and reeducation in functional activities: transfer and protective falling. Describecommon ambulatory aids used in paraplegics and common plints used .in tetraplegics. Describe the useof Hydrotherapy in paraplegics. Describe the concept of team approach in rehabilitation of these patients.

I. Hemiplegia:

Define hemiplegia and identify the following: Sensory disturbance, alterations in tone, loss of selective movement, loss of balance reactions and communications problems.

Treatment: Describe the unilateral and bilateral approaches to treatment. Describe positioning in the supine position, on the affected and on the unaffected sides. Demonstrate activities in the recumbent position arm mobilization. Trunk elongation-scapular movement, arm elevation, activities for a recovering arm: activities for the lower limb. i.e. hip and knee flexion over the side of the bed, knee extension with dorsi flexion, hip control, and isolated knee extension

Mat activities: demonstrate rolling on to affected and unaffected sides, sitting and kneeling. Describe the technique of making a patient sit passively and active assisted in sitting: Demonstrate Transfer Technique. Describe activities in sitting: equal weight transference on buttocks, shuffling on buttocks, weight transfer through arms balance reaction on trunk & head.

Demonstrate activities in the standing position : standing from plinth, from chair (assisted and independent), weight bearing an affected leg, knee, control in stand weight transfers forward, backward and side wards, Gait training and stair climbing. Describe tilt board activities in the lying and sitting positions. Describe additional methods of stimulation using verbal cues, ice, pressure & tapping.

Describe management of shoulder pain and shoulder hand syndrome. Identify and describe hemiplegics gait, identify synergy, Components and abnormal reflex activities. Demonstrate reeducation of gait, motor relearning techniques functional approach and use of orthosis.

J. CEREBELLAR LESIONS:

Identify and assess abnormal tone, decomposition of movement. Rapid alternate movements, Pleurothotonus, proprioception, dysmetria, posture and gait. Treatment: Demonstrate exercises for in coordination-Frenkel's and weighted exercises. Demonstrate techniques for reeducation of balance and equilibrium reactions by visual compensation. Describe use of appropriate aids far ambulation depending in the severity of affection - walker, elbow crutches, quadruped, walking sticks, etc.

K. POLIOMYELITIS & Post Polio syndrome:

Define poliomyelitis and review the stages in the disease -acute, recovery and residual paralysis. Describetreatment in the acute stage: heat chest care, positioning. Describe the assessment of a patient in therecovery stage: active and passive range of motion, soft tissue tightness, muscle power & spinal deformities. Demonstrate treatment in the recovery stage: muscle strengthening- progress resistiveexercises. Describe the role of suspension and hydrotherapy. Describe the treatment of soft tissue tightness by passive stretching, auto-stretching, pre-operative assessment of contractures: hip flexion,

TA contracture, knee flexion and foot deformities. Review orthotic aids commonly used the management of polio. Describe tendon transfer operations commonly performed. Describe functional retraining for self care, gait training and posture correction.

L. Multiple Sclerosis: etiopathology, sign& symptoms, stages, examination procedure, physiotherapy treatment goals and treatment techniques.

M. Balance & Vestibular Disorders: basic physiology and balance control, common vestibular disorder,assessment, therapeutic goals and treatment techniques.

Neuro surgery

Review of pathological changes and principle of pre and post operative management by physiotherapy of the following conditions.Common surgeries of the cranium & brain, Common surgeries of vertebral column & spinal cord, Common surgeries of peripheral nerves, Surgical interventions in traumatic head injuries.

Unit-XXI (PHYSIOTHERAPY IN CARDIO-RESPIRATORY) :-

Respiratory

Review of mechanism of normal respiration (rate, rhythm, use of accessory muscles), Chest examination, including auscultation, percussion, knowledge of various investigative procedures (invasive & non invasive) use in the diagnosis of various respiratory disorders, Chest deformities (Barrel chest, pigeon chest), Measurement: Chest expansion at different Levels, Techniques of physical treatment: Breathing exercise, Chest mobilization exercises Postural drainage, Huffing, Coughing, Percussion, Vibration & Chest Shaking, Review of the Pathological and principles of management by physiotherapy to the following conditions:

COPD, Asthma, Lung abscess, Bronchiectasis, Pleurisy and Empyema, Pneumonia, Bacterial Disease. Rheumatic fever, Carcinoma of respiratory tract, Paralysis of diaphragm & Vocal cords, Chest wall deformities, Principles of Intensive Care Physiotherapy, Aerosol Therapy, Humidification

Cardiovascular

Review of anatomy and physiology of the cardiovascular system, Knowledge of various investigative procedures, Physical assesment (invasive &non invasive) used in the diagnosis of various cardio vascular disorders, Review of pathological changes, Clinical presentation, Principle of management by Physiotherapy of the following conditions:

Hypertension, Hypotension, Aneurysm, Congestive Cardiac failure, Peripheral Vascular Disordes:
a. Atherosclerosis. b. Arteriosclerosis. c. Thrombosis. d. Embolism.e. Burger's diseases.
f. Thrombophlebitis.g. Phlebitis.
Gangrene, Lymphedema.

Thoracic Surgery.

Review of pathological changes and principle of pre and post operative management by physiotherapy of the following conditions:

Lobectomy, Pneumonectomy, Thoracotomy, Thoracoplasty, Endoscopy & Eye Hole surgeries, Corrective surgeries of congenital heart defects, Angioplasties, Blood vessel grafting, Open heart surgeries& Heart transplant.

Unit –XXIIIPhysiotherapy in General Medical & Surgical Conditions

General, Gynecology and Obstetrics and ENT.

Review of pathological changes and principle of pre and post operative management by physiotherapy of the following conditions: 1) Common abdominal surgeries. Including GIT, liver, spleen, Kidney, bladder etc. 2) Common operation of reproductive system, including surgical intervention for child delivery. Ante natal &post natal, physiotherapy. 3) Common operations of the ear, nose, throat & Jaw as related to physiotherapy. 4) Common organ transplant surgeries - heart, liver, bone marrow etc.

Wounds, Burns & Plastic Surgery.

Review of pathological changes and principle of pre and post operative management by physiotherapy of the following conditions: 1) Wounds, ulcers, pressure sores: 2) Burns & their complications. 3) Common reconstructive surgical proceedings of the management of wounds, ulcers, burns & consequent contractures & deformities.

Pediatrics.

A. Review the examination & assessment of a pediatric patient. B.Review of pathological change and principle of management by Physiotherapy of the following conditions: 1) Common congenital and acquired muscle skeletal disorders. 2) Common congenital and acquired neurological disorders (CNS & PNS) 3) Common heredity disorders. 4) Common nutritional, metabolic & vitamin deficiency disorders. 5) Cerebral palsy, myopathy and muscular dystrophies.

Geriatries

A. Review of the examination &assessment of a geriatric patient. B. Review of pathological changes and principle of management by Physiotherapy of the following conditions: 1) Musculoskeletal disorders. 2) Cardiopulmonary disorders 3) Neurological disorders (CNS &PNS) 4) Injuries &accidents specific to the aged.

Skin & Psychiatric disorders

Review of the Pathological and principles of management by physiotherapy to the following conditions. 1. Common conditions of Skin-Acne, Psoriasis, Alopecia, Leucoderma, leprosy, Sexually transmitted diseases. 2. Psychiatric Disorders- Psychosis, Psychoneurosis, Senile dementia

Unit –XXIII (REHABILITATION ON MEDICINE) :- Introduction of Rehabilitation & History, Epidemiology of disability (Impairment, disability, phases of disability process, etc.), Principles of Rehabilitation & concept of team approach with rolls of each individual participant, Organization of Rehabilitation unit, Disability prevention evaluation & principles of Rehabilitation Management, Role of Physiotherapy in Rehabilitation (Preventive, treatment & restoration), Brief outline of Communication disorder & its implications on Rehabilitation process, Brief outline of psychosocial & vocational aspects of Rehabilitation, Introduction to Occupational therapy, Activities of daily living, functional assessment & training for functional independence, Brief outline of basic community medicine with special reference to community based Rehabilitation, infrastructure and role of CBR , Assessment of disability in rural & urban setups. Health care delivery system & preventive measures with specific reference to disabling conditions, Community education program, Application of Physiotherapy skills at community level with special reference to the need at rural level, Role of voluntary Organizations in CBR, National District Level Rehabilitation Program, Role of Physiotherapy in CBR,

Unit-XXIV (ORTHOTICS AND PROSTHOTICS) :- Introduction to surgical anatomy and various pathological deviations with respect to brace fitting, Rationale of prescribing Prosthetic and Orthotic devices, Types of Prosthetic and Orthotic devices: Spinal, Lower limb, and Upper limb, Checkout, usage advice, precautions, and follow-up, Walking aids and wheel chairs: prescription, usage advice, and follow-up.

Annexure-B

Syllabus for Written test for the Post of Tutor (Nursing) contractual

1) General awareness, Reasoning, Mathematics, Science, History including Haryana related history, current affairs, literature, Geography, Civics, Environment, Culture etc.- (Weightage 20%)

2) Computer terminology, Fundamentals, word software, excel software, Power point, internet, web browsing, Communication, emails, downloading and uploading data on websites etc. -

(Weightage 10%)

3) Subject related syllabus- (Weightage 70%)

Anatomy

Introduction to Anatomical terms organization of the human body, The Skeletal System, The Muscular System, The Nervous System, The Sensory System, Circulatory and lymphatic system, The Respiratory System, The Digestive System, The Excretory System (Urinary), The Endocrine System, The Reproductive System including breast.

Physiology

Cell Physiology, Skeletal System, Muscular System, Nervous System, Circulatory System, The Respiratory System, The Digestive System, The Excretory System, The Sensory Organs, The Endocrine System, The Reproductive System, Lymphatic and Immunological System.

Nutrition

Introduction,Carbohydrates, Fats,Proteins, Energy, Vitamins, Mineral,Water & electrolytes, Cookery rules and preservation of nutrients, Balanced Diet,Role of nurse in nutritional programmes.

Biochemistry

Introduction, Structure and functions of Cell membrane, Composition and metabolism of Carbohydrates, Composition and metabolism of Lipids, Composition and metabolism of amino acids and Protein, Composition and metabolism of vitamins and minerals, Immunochemistry.

Nursing Foundations

Introduction, Hospital admission and discharge, Communication and Nurse patient relationship, The Nursing Process, Documentation and Reporting, Vital signs,Health assessment, Machinery, Equipment and linen, Meeting needs of patient, Basic needs (Activities of daily living), Physiological needs, Fluid, electrolyte, and Acid-Base Balances, Psychosocial Needs, Infection control in Clinical settings, Administration of Medications,Meeting needs of Perioperative patients,Meeting special needs of the patient, Care of Terminally ill patient, Hospital management system.

Psychology

Introduction, Biology of behaviour, Cognitive Processes,Motivation and Emotional Processes, Personality, Developmental Psychology, Mental hygiene and mental Health, Psychological assessment & tests.

Microbiology

Introduction, General characteristics of Microbes, Infection Control, Pathogenic organisms, Immunity.

Sociology

Introduction, Individual & Society, Culture, Biodiversity and its conservation, social groups and processes,Population, Family and Marriage, Social Stratification, Types of Communities in India (Rural, Urban and Regional), Social Change, Social organization and social system, Social Control, Social Problems.

Pharmacology, Pathology and Genetics

Introduction, Chemotherapy, Pharmacology of commonly used antiseptics, disinfectants and insecticides, Drugs acting on G.I system, Drugs used on Respiratory Systems, Drugs used on Urinary System, Miscellaneous, Drugs used on skin and mucous membranes, Drugs acting on Nervous system, Cardiovascular drugs, Drugs used for hormonal disorders and supplementation, contraception and medical termination of pregnancy, Introduction to Drugs used in alternative system of medicine.

Pathology

Introduction, Special Pathology, Clinical Pathology, Examination of body cavity fluids, transudates and exudates, Urine and faeces.

Genetics

Introduction, Maternal, Prenatal and genetic influences on development of defects and diseases,Genetic testing in the neonates and children, Genetic conditions of adolescents and adults, Services related to Genetics.

Medical Surgical Nursing(Adult including Geriatrics)

Introduction, Introduction to Medical Surgical asepsis, Common signs and symptoms and management, Nursing management of patients(adults including elderly)with respiratory problems, Nursing management of patient(adults including elderly)with disorders of digestive system, Nursing management of patient(adults including elderly)with blood and cardio vascular problems, Nursing management of patient(adults including elderly)with Genito-urinary problems, Nursing management of disorder of male (adults including elderly) reproductive system, Nursing management of patient(adults including elderly)with disorder of endocrine system, Nursing management of patient(adults including elderly)with disorder of integumentary system,Nursing management of patient(adults including elderly)with musculoskeletal problems, Nursing management of patient(adults including elderly)with Immunological problems, Nursing management of patient(adults including elderly)with Communicable Diseases, Peri operative nursing, Nursing management of patient with disorders of Ear Nose and throat, Nursing management of patient with disorders of eye, Nursing management of patient with Neurological disorders, Nursing management of patient with disorders of female reproductive system,Nursing management of patient with Burns, reconstructive and cosmetic surgery, Nursing management of patient with oncological conditlons, Nursing management of patients in EMERGENCY & DISASTER situations, Emergency Nursing, Nursing care of the elderly, Nursing management of patient in critical care units, Nursing management of patients adults including elderly with occupational and Industrial disorders.

Community Health Nursing

Introduction, Determinants of health, Epidemiology, Epidemiology and Nursing management of common communicable diseases, Epidemiology and Nursing management of common non-Communicable diseases, Demography, Population and its Control, Health planning and policies and problems,Delivery of community health services, Community health nursing approaches, concepts and roles and responsibilities of nursing personnel, Assisting individuals and groups to promote and maintain their health, National health and family welfare programmes and the role of a nurse, Health Agencies.

Communication & Education Technology

Review of Communication Process, Interpersonal relations, Human Relations, Guidance and Counselling, Principles of Education & Teaching Learning Process, Methods of teaching,educational media,Assessment, Information, Education & Communication for health (IEC).

Child Health Nursing

Introduction Modern concepts of childcare, The healthy child, Nursing care of a neonate, Integrated management of neonatal and childhood illnesses (IMNCI), Nursing management in common childhood diseases, Management of behavioural &social problems in children.

Mental Health Nursing

Introduction, Principles and Concepts of Mental Health Nursing, Assessment of Mental health status, Therapeutic communication and nurse - patient relationship, Treatment modalities and therapies used in mental disorders, Nursing management of patients with Schizophrenia, and other psychotic disorders, Nursing management of patients with mood disorders, Nursing management of patients with neurotic, stress related and somatization disorders, Nursing management of patients with substance use disorders, Nursing management of patients with Personality, Sexual and eating disorders, Nursing management of Childhood and adolescent disorders including mental deficiency,Nursing management of patients with Organic brain disorders, Psychiatric emergencies and crisis intervention, Legal issues in mental health nursing, Community Mental Health Nursing.

Nursing Research and Statistics

Research and research process, Research Problem/Question, Review of Literature, Research approaches and designs, Sampling and data collection, Analysis of data, Introduction to statistics,Communication and utilization of Research.

Midwifery and Obstetrical Nursing

Introduction to midwifery and obstetrical Nursing, Review of anatomy and physiology of female reproductive system and foetal development, Assessment and management of pregnancy (ante-natal) : Normal pregnancy, Assessment and management of intra-natal period, Assessment and management of women during post-natal period: Normal puerperium, Assessment and management of normal neonates, High-risk pregnancy - assessment & management, Abnormal Labour - assessment and management, Abnormalities during Postnatal Periods, Assessment and management of High risk new-born, Pharmaco-therapeutics in obstetrics, Family Welfare Programme.

Management of Nursing Services and Education

Introduction to Management in Nursing, Management Process, Management of Nursing Services in the Hospital & Community, Organizational Behaviour and Human Relations, In service Education, Management of Nursing educational institutions, Nursing as a Profession,Professional Advancement.