

SCHEME AND SYLLABUS OF EXAMINATION FOR THE PURPOSE OF FILLING UP THE POST OF JUNIOR PHYSIOTHERAPIST UNDER THE SIKKIM STATE SUBORDINATE ALLIED AND HEALTHCARE SERVICE.

I. The mode of examination and setting-up of question-papers shall be both, i.e., conventional type and objectivestype MCQs in paper I and II. The candidates are required to answer the objective type MCQs in the OMR Sheets and are required to follow the guidelines provided in the OMR Sheet while answering the questions.

II. The subject wise allotment of maximum marks shall be as under:

Syllabus:-		
General English	PAPER I	50 marks
General Knowledge		30 marks
Main Paper Junior Physiotherapist course	PAPER II	100 marks
TOTAL		180 marks
Viva voce/ interview		20 marks
Grand Total		200 marks

III. Syllabus for written examination for Junior Physiotherapist : -

Sl. No.	Course	
01	02	03
01	ANATOMY	i). Organisation of various systems in human body ii). Recognizing the anatomical structures, their gross and surface anatomy iii). Describe in detail the structure and function of musculoskeletal, central nervous system, cardio-vascular, respiratory, and excretory systems iv). General outline of digestive, reproductive and endocrinal system and their functions
02	PHYSIOLOGY	i). Physiological functions of various systems, with special reference to Musculo-skeletal, Neuro-motor, Cardio-vascular, Respiratory, Female urogenital function and alteration in functions with ageing ii). The relative contribution of each organ system in maintenance of the homeostasis iii). Physiological response & adaptation to environmental stresses with special emphasis on physical activity and temperature. iv). The skill of basic clinical examination, with special emphasis to Peripheral & Central Nervous system, cardiovascular & Respiratory system, & Exercise tolerance/ Ergography
03	BIOCHEMISTRY	i). Understanding of basic Biochemistry principles in human processes and metabolism ii). Related biochemistry knowledge with underlying mechanism of physiotherapeutic
04	SOCIOLOGY	i). The dynamics of society and its interaction with health in rural and urban communities in India ii). Basic sociological principles related with social processes, social institutions (in relation to the individual, family and community)

05	Exercise Therapy I	<ul style="list-style-type: none"> i). Motion in human body pertaining to axis and planes of movement, fundamental and derived positions ii). The forces acting in the Musculo-skeletal system iii). Proficiency in testing evaluating joint motions
06	Electro Therapy I	<ul style="list-style-type: none"> i). Understanding of various electric currents used in human body ii). Safety issues, and preparation and care of electrotherapeutic modalities. iii). The types of electrotherapeutic current, waveforms, and their applications iv). Identify purpose, effects, indications, contraindications, and precautions for application of electrotherapy modalities
07	Basic Nursing and First Aid	To demonstrate and maintain competency to provide first aid in cases of emergency
08	PATHOLOGY	<ul style="list-style-type: none"> i). To demonstrate understanding of patho-physiological processes which govern the maintenance of homeostasis, mechanisms of their disturbance and the morphological and clinical manifestations associated with it. ii). To demonstrate understanding of the mechanisms and patterns of tissue response to injury such that he/she can appreciate the pathophysiology of disease processes and the clinical manifestations
09	MICROBIOLOGY	<ul style="list-style-type: none"> i). To demonstrate understanding of microbes, their classification, routes of infection and interpret culture tests, list common diagnostic tests for infections ii). To demonstrate understanding of principles of prevention of infections, sterilization, disinfectants, iii). To demonstrate understanding of basic immunological process associated with infections
10	PHARMACOLOGY	<ul style="list-style-type: none"> i). To understand and correlate the biochemical process involved with drugs in human body ii). To correlate the physiologic and pharmacologic actions of these drugs, their primary beneficial, adverse effect and contraindications, with a particular emphasis on how drug therapy can impact physical rehabilitation
11	GENERAL PSYCHOLOGY & PSYCHIATRY	<ul style="list-style-type: none"> i). Apply principles of psychological theories to relate to development and deficiency in perception and cognito- behavioral aspects of human functioning ii). Apply principles of psychological theories in enhancing learning, performance, skill acquisition iii). Relate psychological methods to initiate, increase and or maintain desired behaviour and decrease / stop undesired behaviours to prevent disability or disabling conditions iv). Relate the basic principles of cognito-behavioral approaches in management of chronic catastrophizing conditions v). To understand the abnormal psycho-somatic disorders and their impact on human functioning
12	EXERCISE THERAPY	<ul style="list-style-type: none"> i). List the indications and contraindications of various types of exercise and demonstrate the different techniques and describe their effects. ii). demonstrate Basic handling and movement analysis skills iii). Demonstrate competence in implementing selected components of interventions identified in the plan of care established by the physical therapist utilizing underlying physiological principles and awareness of indications, contraindications, diagnosis
13	ELECTRO THERAPY II	<ul style="list-style-type: none"> i). Demonstrate the understanding of the principles, techniques and effects of electrotherapy as a therapeutic modality in the restoration of physical function ii). List the indications and contraindications of various types of electrotherapy, modalities and demonstrate the different techniques and describe their effect. iii). Demonstrate safe handling and termination of treatment procedure

14	BIOMECHANICS AND KINESIOLOGY	<ul style="list-style-type: none"> i). Demonstrate understanding of internal and external forces acting on human body ii). Describe kinematics and kinetics of different joints of body iii). Interpret graphs and simple models which are used to explain human movement.
15	CLINICAL ORTHOPAEDICS	<ul style="list-style-type: none"> i). Conduct an appropriate basic examination of the musculoskeletal system, including history and physical examination ii). Understand the common traumatic and orthopaedic conditions, which commonly cause disability iii). Able to recognise afflictions, deformities and disabilities arising in Paediatric Orthopaedics, trauma, infective diseases of joints, spinal conditions
16	RHEUMATOLOGY	<ul style="list-style-type: none"> i). Understanding of the basic patho-physiological process of common rheumatological conditions, which commonly cause disability ii). To recognise afflictions, deformities and disabilities arising in rheumatological conditions of joints
17	NEURO-MEDICINE/ NEUROSURGERY	<ul style="list-style-type: none"> i). Understand the patho-physiological process in development of diseases of nervous system ii). Understanding of common procedures for establishment of neurological diagnosis, interpret the reports to prevent further complications and guide the rehabilitation process iii). Able to recognise afflictions, conduct an appropriate basic examination of the nervous system iv). Demonstrate an understanding of neurological conditions causing disability and their management
18	OBSTETRICS AND GYNECOLOGY	<ul style="list-style-type: none"> i). Understand and manage all stages of pregnancy, including intrapartum and postpartum care ii). Detect high risk pregnancy, provide primary care and learn when to refer to higher centre iii). The common pathological conditions of reproductive tract and its implications in women's health
19	PAEDIATRICS	<ul style="list-style-type: none"> i). To acquire adequate knowledge of optimal growth and development. ii). To acquire adequate knowledge on major health problems of children like malnutrition, poisoning, metabolic disorders, abuse iii). To have brief idea of paediatric examination to estimate deviations in sick children in comparison to health children iv). Understand common paediatric disorders and emergencies in terms of epidemiology, etiopathogenesis, clinical manifestations, diagnosis, rational therapy and rehabilitation
20	PREVENTIVE SOCIAL MEDICINE & COMMUNITY REHABILITATION	<ul style="list-style-type: none"> i). Understand the effects of the interaction between individual, environment and infective agents ii). Understand the community dynamics on the health of the individual with special emphasis on disability limitation specific protection and rehabilitation. iii). Understand the concept of level of health care delivery, social security, objectives of health agencies in promoting health
21	PHYSIOTHERAPY IN ORTHOPEDIC CONDITIONS	<ul style="list-style-type: none"> i). Integrate the knowledge gained by the students in clinical Orthopaedics with the skills gained in Exercise therapy, Electrotherapy and Physical evaluation for identification of dysfunction of musculoskeletal system amenable to rehabilitation ii). To demonstrate sound knowledge in evaluation of Musculo-skeletal pathologies using tests and examinations iii). To plan appropriate rehabilitation interventions for patients with disorders of musculoskeletal system
22	PHYSIOTHERAPY IN NEUROLOGICAL CONDITIONS	<ul style="list-style-type: none"> i). Apply basic evaluation and intervention outcome processes appropriate for neurological physiotherapy practice ii). Conduct an appropriate basic examination of the neurologic system, including history and physical examination iii). Demonstrate basic measurement and testing procedures commonly used in assessing neurologic dysfunction in adults and Paediatrics from the perspective of rehabilitation

23	GENERAL MEDICINE (GENERAL MEDICINE, CHEST MEDICINE AND DERMATOLOGY)	<ul style="list-style-type: none"> i). Basic principle of history taking and clinical examinations ii). Correlation of clinical symptoms and physical signs to manifestation in state of illness iii). About aetiology, pathology, Type and Degree of Disability the patient will have as a result of the disease, so that he/she as a physiotherapist with physician should help the patient to achieve cure and/or ameliorate his/her illness and sufferings. 	
24	GENERAL SURGERY	GENERAL SURGERY	<ul style="list-style-type: none"> i). Describe aetiology, pathophysiology, principles of diagnosis and management of common surgical problems including emergencies, in adults and children ii). Principles of operative surgery, including pre-operative, operative and post-operative care and monitoring and the impairments that follow the surgical procedures iii). Post-surgical care and precautions in amputations, thoracic, abdominal and vascular surgeries iv). Handling post-surgical cases for rehabilitation so that he/she as a Physiotherapist with physician should help the patient to achieve cure and/or ameliorate his/her illness and sufferings
		ANESTHESIOLOGY	<ul style="list-style-type: none"> i). The secondary impairments which follow in cardio-respiratory systems during immobilisation ii). The principles of care in unconscious patient, including airway and ventilation management, maintaining bronchial hygiene during tracheostomy, intubation and other similar procedures iii). Common pain control procedures in acute and chronic pain and criteria for the same iv). Demonstrate competency in basic CPR
		OPHTHALMOLOGY	<ul style="list-style-type: none"> i). The correlation of clinical symptoms and physical signs with manifestation of Visual Impairments like eye movements, visual acuity and systemic manifestations in eye ii). List out infective conditions of the eye, with the main aim to prevent infection iii). Understand ocular involvement in various conditions where basic care of the eye has to be taken iv). Common surgical procedures for maintenance of visual acuity, visual disturbance in other systemic conditions like DM, conditions causing paralysis of eyelids
		ENT	<ul style="list-style-type: none"> i). The correlation of clinical symptoms and physical signs with manifestation of Impairments in the conditions of ear, nose and throat ii). Understanding of manifestations of vestibular system, and its interference in with activities of daily living. iii). Assessment of vestibular systems using clinical examination
25	FUNCTIONAL DIAGNOSIS	EXERCISE PHYSIOLOGY	<ul style="list-style-type: none"> i). Knowledge proficiency in exercise prescription for both healthy and chronic disease populations ii). Evaluate pre-participation screening/ health risk appraisal and stratification, b) fitness assessment and evaluation iii). Develop a comprehensive exercise program based on energy and sport demands.
		ELECTRO DIAGNOSIS	<ul style="list-style-type: none"> i). Demonstrate knowledge electrophysiology function of neuromuscular systems ii). Acquire knowledge of EMG Biofeedback parameters iii). Have hands on knowledge of EMG and NCV in various phases of rehabilitation and research

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26	PHYSIOTHERAPY IN GENERAL CONDITIONS	i). Understanding of application to rehabilitation techniques to cardio respiratory conditions ii). Demonstrate a well-developed approach in promoting wellness as relevant to the pulmonary and cardiovascular systems. iii). Understand the functions of the multidisciplinary team in the management of cardiopulmonary patients, including intensive care and cardiopulmonary rehabilitation, and describe the physiotherapists role in the multidisciplinary team
27	COMMUNITY BASED PHYSIOTHERAPY	i). Understanding of the models of disability and disability creation process ii). Principles of classification of functioning disability and health to facilitate client independence in community through systems approach of interventions using rehabilitative techniques iii). Develop an attitude to address an identified health issue relevant to rehabilitation based on the principles of CBR matrix and use these principles in programme activities
28	RESEARCH AND ETHICS	i). Understand basic outline of research methodology and have brief idea of statistical skills used in collection, compilation, analysis and interpretation of data ii). The plan and execute a research project with help of supervisors iii). The ethical aspects of research and protection of the rights of the participants in research



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