

જગ્યાનું નામ: લેકચર ઇન ફિઝીયોથેરાપી ,સામાન્ય રાજ્ય સેવા, વર્ગ-૨

(જ.ક.૧૦૪ /૨૦૨૪-૨૫)

ભાગ-૧ અને ભાગ-૨ ના પ્રશ્નપત્રોની પ્રાથમિક ડસ્કોટીનો અભ્યાસક્રમ

સીધી પસંદગીથી ભરતીની પ્રાથમિક ડસ્કોટીનો અભ્યાસક્રમ ભાગ-૧ (સામાન્ય અભ્યાસ)		
માધ્યમ: ગુજરાતી		કુલ ગુણ : ૧૦૦
મુદ્દા	વિષય	ગુણ
૧	ભારતની ભૂગોળ- ભૌગોલિક, આર્થિક, સામાજિક, કુદરતી સંસાધન અને વસ્તી અંગેની બાબતો- ગુજરાતના ખાસ સંદર્ભ સાથે	૩૦
૨	ભારતનો સાંસ્કૃતિક વારસો- સાહિત્ય, કલા, ધર્મ અને રચાપત્યો- ગુજરાતના ખાસ સંદર્ભ સાથે	
૩	ભારતનો ઇતિહાસ- ગુજરાતના ખાસ સંદર્ભ સાથે	
૪	ભારતની અર્થવ્યવસ્થા અને આયોજન	
૫	ભારતીય રાજનીતિ અને ભારતનું બંધારણ: (૧) આમુખ (૨) મૂળભૂત અધિકારો અને ફરજો (૩) રાજ્યનીતિના માર્ગદર્શક સિદ્ધાંતો (૪) સંસદની રચના (૫) રાષ્ટ્રપતિની સત્તા (૬) રાજ્યપાલની સત્તા (૭) ન્યાયતંત્ર (૮) અનુસૂચિત જાતિ, અનુસૂચિત જનજાતિ અને સમાજના પછાત વર્ગો માટેની ખેગવાઈઓ (૯) નીતિ આયોગ (૧૦) બંધારણીય તથા વૈદ્યાનિક સંસ્થાઓ- ભારતનું ચૂંટણી પંચ, કોમ્પ્યુટર એન્ડ ઓડિટર જનરલ, માહિતી આયોગ	
૬	સામાન્ય વિજ્ઞાન, પર્યાવરણ અને ઈન્ફર્મેશન એન્ડ કોમ્યુનિકેશન ટેકનોલોજી	૧૦
૭	ખેલ જગત સહિત રોજબરોજના પ્રાદેશિક, રાષ્ટ્રીય અને આંતરરાષ્ટ્રીય મહત્વના બનાવો	૧૦
૮	સામાન્ય બૌદ્ધિક ક્ષમતા ડસ્કોટી (૧) તાર્કિક અને વિશ્લેષણાત્મક ક્ષમતા (૨) સંખ્યાઓની શ્રેણી સંકેત અને તેનો ઉકેલ. (૩) સંબંધ વિષયક પ્રશ્નો. (૪) આકૃતિઓ અને તેના પેટા વિભાગ, વેન આકૃતિઓ (૫) ઘડીયાળ, કેલેન્ડર અને ઉમર સંબંધિત પ્રશ્નો.	૩૦

	<p>(ક) સંખ્યા વ્યવસ્થા અને તેના માનક્રમ.</p> <p>(ગ) શૈક્ષિક સમીકરણ (એક કે બે ચલમાં)</p> <p>(ઠ) પ્રમાણ, હિસ્સો અને ચલ.</p> <p>(એ) સરેરાશ યા મધ્યક, મધ્યસ્થ અને બહુલક, ભારિત સરેરાશ. .</p> <p>(૧૦) ઘાત અને ઘાતાંક, વર્ગ, વર્ગમૂળ, ઘનમૂળ, ગુ.સા.અ. અને લ.સા.અ</p> <p>(૧૧) ટકા, સાદુ અને ચક્રવૃદ્ધિ વ્યાજ, નફો અને નુકશાન.</p> <p>(૧૨) સમય અને કાર્ય, સમય અને અંતર, ઝડપ અને અંતર.</p> <p>(૧૩) સ્વરણ ભૌતિક આકૃતિઓના ક્ષેત્રહૂળ અને પરિમિતિ, જથ્થો અને સપાટીનો વિસ્તાર (છ સમાંતર બાજુ ધરાવતો ઘન, ઘન, સિલિન્ડર, શંકુ આકાર, ગોળાકાર).</p> <p>(૧૪) રેખા, ખૂણા અને સામાન્ય ભૌમિતિક આકૃતિઓ-સાદી કે ત્રાંસી સમાંતર રેખાઓના ગુણધર્મો, ત્રિકોણની સાપેક્ષ બાજુઓના માપનના ગુણધર્મો, પાયથાગોરસનો પ્રમેય, ચતુર્ભૂજ, લંબગોળ, સમાંતર બાજુ ચતુષ્કોણ, સમભૂજ ચતુષ્કોણ.</p> <p>(૧૫) બીજગણિતનો પરિચય-BODMAS-કાનાભાગુવઓ-વિચિત્ર પ્રતિકોની સ્વરણ સમજૂતિ.</p> <p>(૧૬) માહિતીનું અર્થઘટન, માહિતીનું વિશ્લેષણ, માહિતીની પર્યાપ્તતા, સંભાવના</p>	
૯	<p>ગુજરાતી વ્યાકરણ</p> <p>(૧) બેડણી</p> <p>(૨) સમાનાર્થી-વિરુદ્ધાર્થી શબ્દો</p> <p>(૩) રૂઢિપ્રયોગો અને કહેવતો</p> <p>(૪) સમાસ</p> <p>(૫) સંધિ</p> <p>(૬) અલંકાર</p> <p>(૭) છંદ</p>	૧૦
૧૦	<p>English Grammar</p> <p>(1) Articles, Pronouns, Adjectives, Prepositions, Conjunctions and Question tag.</p> <p>(2) Verb and Tense, Agreement between subject and verb, Gerund, Participles.</p> <p>(3) Modal auxiliaries. Usage of can, may, could, should, etc.</p> <p>(4) Use of some, many, any, few, a little, Since and for.</p> <p>(5) Active and passive voice</p> <p>(6) Degrees of adjectives.</p> <p>(7) Common errors of usage.</p>	૧૦

❖ મુદ્દા ક્રમાંક ૮ થી ૧૦ માટેનો અભ્યાસક્રમ ધોરણ ૧૨ સમકક્ષ રહેશે.

**Syllabus for Preliminary Test for Recruitment by Direct Selection
Part-1 (General Studies)**

Medium: Gujarati

Total Marks: 100

Point No.	Subject	Marks
1	Geography of India – Geographical, Economic, Social, Natural Resources and Population related topics – With Special reference to Gujarat	30
2	Cultural Heritage of India – Literature, Arts, Religion and Architecture - With Special reference to Gujarat	
3	History of India- With Special reference to Gujarat	
4	Indian Economy and Planning	
5	Indian Politics and Constitution of India: (1) Preamble (2) Fundamental Rights and Fundamental Duties (3) Directive Principles of State Policy (4) Composition of Parliament (5) Powers of the President of India (6) Powers of Governor (7) Judiciary (8) Provisions for Scheduled Casts, Scheduled Tribes and Backward Classes of the society (9) NITI Aayog (10) Constitutional and Statutory Bodies: Election Commission of India, Comptroller and Auditor General, Information Commission	
6	General Science, Environment and Information & Communication Technology	10
7	Daily events of Regional, National and International Importance including Sports	10
8	General Mental Ability Test (1) Logical Reasoning and Analytical Ability (2) Number Series, Coding-Decoding (3) Questions about relationship. (4) Shapes and their Sub-sections, Venn Diagram (5) Questions based on Clock, Calendar and Age (6) Number system and order of Magnitude (7) Linear Equations - in one or two Variables (8) Ratio, Proportion and Variation (9) Average of Mean, Median, Mode- including weighted Mean (10) Power and Exponent, Square, Square Root, Cube Root, H.C.F. & L.C.M. (11) Percentage, Simple and Compound Interest, Profit and Loss	30

	<p>(12) Time and Work, Time and Distance, Speed and Distance</p> <p>(13) Area and Perimeter of Simple Geometrical Shapes, Volume and Surface Area of Sphere, Cone, Cylinder, Cubes and Cuboids</p> <p>(14) Lines, Angles and Common geometrical figures - properties of transverse or parallel lines, properties related to measure sides of a triangle, Pythagoras theorem, quadrilateral, rectangle, Parallelogram and rhombus.</p> <p>(15) Introduction to algebra-BODMAS, simplification of weird Symbols.</p> <p>(16) Data interpretation, Data Analysis, Data sufficiency, Probability</p>	
9	<p>Gujarati Grammar</p> <p>(૧) જોડણી</p> <p>(૨) સમાનાર્થી-વિરુદ્ધાર્થી શબ્દો</p> <p>(૩) રૂઢિપ્રયોગો અને કહેવતો</p> <p>(૪) સમાસ</p> <p>(૫) સંધિ</p> <p>(૬) અલંકાર</p> <p>(૭) છંદ</p>	10
10	<p>English Grammar</p> <p>(1) Articles, Pronouns, Adjectives, Prepositions, Conjunctions and Question tag.</p> <p>(2) Verb and Tense, Agreement between subject and verb, Gerund, Participles.</p> <p>(3) Modal auxiliaries. Usage of can, may, could, should, etc.</p> <p>(4) Use of some, many, any, few, a little, Since and for.</p> <p>(5) Active and passive voice</p> <p>(6) Degrees of adjectives.</p> <p>(7) Common errors of usage.</p>	10

❖ The standard of the syllabus for point no. 8 to 10 will be equivalent to Standard 12.

Part-II

Syllabus for the post of Lecturer in Physiotherapy, Class II

Marks: 200

Questions:200

Medium: English

1. HUMAN ANATOMY

Musculoskeletal anatomy, Neuro-anatomy, Cardiovascular System, Respiratory System, Lymphatic System, Regional Anatomy – Upper extremity, Lower Extremity, Thorax, Head & Neck

2. HUMAN PHYSIOLOGY

Blood, Cardiovascular System, Respiratory System, Nutrition, Neuromuscular Physiology – Nerves & Muscles, Nervous System

3. BIOCHEMISTRY, PATHOLOGY, PHARMACOLOGY

Biochemistry: Nutritional aspects of carbohydrates, lipids, proteins, vitamins and minerals and their metabolism (energy expenditure) with special reference to obesity, Biochemical aspects of muscle contraction, Bio chemistry of connective tissue – Collagen, Glycoprotein, Proteoglycans

Pathology: Cell injury and changes produced thereby in different tissues and organs; capacity of the body in healing process, Etio-pathogenesis, the pathological effects and the clinico-pathological correlation of common infection and non-infectious disease, Normal and altered morphology of different organ systems in different diseases needed to understand the disease process and their clinical significance (with special emphasis to neuro musculo skeletal and cardiovascular – respiratory system)

Pharmacology: Pharmacological effects of commonly used drugs by patients referred for physiotherapy; adverse reactions, precautions to be taken, contraindications, formulation and route of administration. Use of analgesics and anti-inflammatory agents with movement disorders, with consideration of cost efficiency and safety for individual needs

4. RESEARCH METHODOLOGY

Research Designs, Hypothesis Generation, Types of research, Plagiarism, Scientific Writing, How to do literature review, Reference Citation styles, Sampling techniques, Statistical Tests - Descriptive Analysis, Experimental Studies, Cross sectional studies, Correlation studies; Types of errors.

5. MEDICINE, SURGERY AND ORTHOPEDICS

Medicine: Etiology, Patho-physiology, signs and symptoms differential diagnosis and medical management in brief: Infectious diseases, Diseases of metabolism especially obesity and other related medical conditions, Cardio-vascular and respiratory disorders with interpretation of investigations: chest x-ray, Echocardiography, blood gas analysis, blood investigations and pulmonary function test; Auto-immune & rheumatological conditions with special emphasis to those involving Musculoskeletal system, Neurological system, Neuro muscular, musculo skeletal and cardio pulmonary conditions related to immunological conditions, nutritional deficiencies, infectious disease and genetically transmitted conditions in Pediatrics.

Surgery: Surgical management in brief of (a) wounds-ulcers (b) burns, Pre-operative evaluation, surgical indications and various surgical approaches in various abdominal conditions and peripheral vascular conditions, Post-operative abdominal conditions with special reference to the cardio-vascular and pulmonary function and its Post-operative management in brief, Management of head injury, spinal surgeries, intracranial tumors, peripheral nerve lesions and pain, Interpretation of investigations including findings of the x-ray chest, CT scan and MRI scan.

Orthopedics: Clinical manifestations and conservative/surgical management of various traumatic and non-traumatic conditions of the musculo-skeletal conditions, Interpretation of salient features of the x-ray, CT Scan and MRI of the spine and extremities, and correlation of the radiological findings with the clinical findings.

6. BIOMECHANICS

Mechanics of Joint motion, Mechanics of muscular action, Posture, postural strain and occupational hazards, Locomotion, Kinetics, kinematics and pathomechanics of various joint – spinal column, hip, knee, ankle, foot, shoulder, elbow, wrist and hand; Biomechanics and Pathomechanics of Temporomandibular joint, Thorax and Pelvic Complex.

7. EXERCISE THERAPY

Biophysical properties of connective tissue and the effect of biomedical loading and factors which influence the muscle strength and mobility of articular and periarticular soft tissue, Assessing Range of Motion, Muscle Power, Joint and Muscle Flexibility, End feels, Joint Mobilization, Soft tissue stretching, soft tissue

manipulation, Strength and Endurance training, Breathing exercises and Postural Drainage, Neuromuscular co-ordination training, Balance training, Functional re-education, Hydrotherapy, Clinical decision making for exercise planning and prescription, Evidence based exercise protocols for various conditions.

8. ELECTROTHERAPY

Electromagnetic Radiations, Production, physiological effects, therapeutic uses, techniques of applications, merits/ demerits, indications and contraindication of various Low, Medium and High frequency current therapy, Advanced Electrotherapy – Combination therapy, Shockwave therapy, TECAR therapy, Matrix Rhythm, Pulsed Electromagnetic Energy, Spinal Decompression, LASER therapy etc. , Clinical Decision making of Electrophysical agents in various pathological conditions, Evidence Based Practice of Electrophysical agents.

9. PHYSIOTHERAPY IN ORTHOPEDICS & SPORTS

Musculoskeletal dysfunction in terms of biomechanical, kinesiological and biophysical basis, Clinical correlation of various musculoskeletal conditions with the provisional diagnosis, routine radiological and electro physiological investigations, Physical and functional diagnosis with clinical reasoning, Short and long term physiotherapy treatment of various musculoskeletal conditions, Various treatment approaches with recent advances – Manual Therapy, Joint Mobilization and Manipulation, Soft Tissue Manipulation, Neural tissue mobilization etc., Understanding of the nature of sports injuries, evaluation and treatment of sports injuries, Role of physiotherapist in training and rehabilitating a sports person, Sports psychology and doping in sports, Prescription of appropriate walking aids, orthosis and prosthesis, Evidence based practice and protocols for various musculoskeletal disorders and sports injuries.

10. PHYSIOTHERAPY IN NEUROSCIENCES

Neuro motor and psychosomatic dysfunction in terms of alteration in the muscle tone, power, coordination, involuntary movements, sensations, perceptions etc., Correlation of the assessment findings with provisional diagnosis and investigations such as EMG/NCS , Physical and functional diagnosis with clinical reasoning in various neuromuscular disorders, Plan, prescribe and execute short term and long term treatment in various neurological disorders, Evidence based practice and protocols for various neurological disorders.

11. PHYSIOTHERAPY IN CARDIORESPIRATORY CONDITIONS

Evaluation of cardio vascular and pulmonary dysfunction based on pathophysiological principles, Evaluation and interpretation of functional capacity using simple exercise tolerance tests, symptom limited tests, Physical and functional diagnosis with clinical reasoning, Strategies for cure, care and prevention to adopt restorative and rehabilitative measures for maximum possible functional independence of a patient at home, work place and in community, Physiotherapeutic measures (with appropriate clinical reasoning) with special emphasis to breathing retraining, nebulization, humidification, bronchial hygiene, general mobilization and exercise conditioning in Cardiorespiratory and general medical and surgical conditions, Assessment of various degrees of burns, planning and implementation of physiotherapy techniques for the rehabilitation of a burn and wound patient, Evidence based practice and protocols for various Cardiorespiratory disorders and medical and surgical conditions.

12. COMMUNITY PHYSIOTHERAPY, WOMEN'S HEALTH & GERIATRICS

Role of physiotherapist in multidisciplinary team approach in rehabilitation, General concepts about Health, Disease & Physical fitness, Policies for the rehabilitation of disabled, Role of Council and Association to promote physiotherapy as a health delivery system, Strategies to assess prevalence & incidence of various conditions responsible for increasing morbidity in the specific community, role of physiotherapy in reducing morbidity, expected clinical & functional recovery, reasons for non-compliance in specific community & environmental solution for the same, Evaluation of disability & planning for prevention & rehabilitation, CBR in urban & rural set up, WHO policies, concept of team work, role of multi- purpose health worker, Identification with clinical reasoning the prevailing contextual (environmental & psychosocial, cultural) factors, causing high risk, responsible for various dysfunctions & morbidity related to lifestyle & specific community like women, aged, industrial workers & describe planning strategies of interventional policies to combat such problems, Evaluation and management of Geriatrics, Obesity, Menopausal problems, Osteoporosis etc., Biomechanical principles of application of variety of aids & appliances used for ambulation, protection & prevention, Evaluation and physiotherapy treatment for obstetrics and gynecological surgical conditions.

13. PHYSIOTHERAPY IN ONCOLOGY & PEDIATRICS

Physiotherapy in pediatrics: Evaluation of commonly seen Pediatric conditions (Neurology, Cardio-respiratory, Musculoskeletal), Clinical correlation of various Pediatric conditions with the provisional diagnosis, routine radiological and

electro physiological investigations, Physical and functional diagnosis with clinical reasoning, Treatment approaches for Pediatric Conditions, Short and long term physiotherapy treatment of various Pediatric conditions, NICU and Physiotherapy management, Evidence based practice and protocols for various Pediatric conditions.

Physiotherapy in oncology: Physiotherapy Evaluation of patients suffering from cancer, Physical and functional diagnosis with clinical reasoning, Treatment approaches for Cancer patients, Short and long term physiotherapy treatment for patients suffering from Cancer, Palliative care, Physiotherapy management for cancer patients in ICU, Technical skill in diagnosing and managing the physiotherapy related oncology conditions

14. Current Trends and Recent Advancements in the above fields.