

Annexure XXVI

(Enclosure to Notification No. 1479/SS/T9/KGBV/URS/2022, Dt:16.06.2023 of DSE & EO-SPD, TSS, Hyd.)

Syllabus of Written Test for Recruitment of Physical Education Teacher (PET) in KGBVs

Part - I General Studies

1. Current Affairs - Regional, National & International.
2. Indian Constitution; Indian Political System: Governance and Public Policy.
3. Social Exclusion; Rights issues such as Gender, Caste, Tribe, Disability etc., and inclusive policies.
4. Society Culture, Civilization Heritage. Arts and Literature of India and Telangana
5. General Science; India's Achievements in Science and Technology
6. Environmental Issues; Disaster Management- Prevention and Mitigation Strategies and Sustainable Development.
7. Economic and Social Development of India and Telangana.
8. Socio-economic, Political and Cultural History of Telangana with special emphasis on Telangana Statehood Movement and formation of Telangana state.

Part-II: General English

1. Parts of speech
2. Tenses
3. Types of sentences
4. Articles and prepositions
5. Degrees of Comparison
6. Direct speech and indirect speech
7. Clauses
8. Voice - Active and passive voice
9. Use of phrases
10. Comprehension of a prose passage
11. Composition
12. Vocabulary

Part III: History, Principles and Foundations of Physical Education

- **Introduction:** Meaning, Definition and Scope of Physical Education, Aims and Objectives of Physical Education, Importance of Physical Education in present era.
- **Historical Development of Physical Education:** Greece, Germany, British Period (Before 1947), Physical Education in India (After 1947), Contribution of Akhadas and Vyayamsalas, H.V.P.Mandals, Institutions / Bodies in Physical Educations and Sports: YMCA, LNIPE, NSNIS, IOA, SAI,SAF, SGF, PYKKA, KHELO INDIA & FIT INDIA programme, RGKA, SATS, Physical Education & Sports Universities.
- **Policies, Schemes, Awards:** Bharata Ratna, Padmasri, Padmabhushan, Padmavibhushan, Arjuna, Dronacharya, Rajiv Khel Ratna, Ekalavya, Jhansi Laxmibai, Abhimanya,, Trophies/ Cups in Physical Education and Sports at State/National level.
- **Foundations of Physical Education:** Philosophical foundation: Idealism, Pragmatism, Naturalism, Realism, Humanism, Existentialism and Indian Philosophy and Culture. Fitness and wellness movement in the contemporary perspectives, Sports for all and its role in the maintenance and promotion of fitness.
- **Principles of Physical Education:** Biological Growth and development, Gender Difference: Physical, Physiological & Anthropometric (Sheldon and Kretchmer)

Part - IV: Anatomy and Physiology

- **Introduction:** Meaning and Definition of Anatomy, Physiology and their importance in Physical Education. Structure, function and division of cell. Tissues: Functions and types of Tissues. Structural and functional classification of Muscles. Functional and muscles properties and functions of skeletal muscles.
- **Skeletal System:** Structure of bone. Axial and Appendicular Skeletal system, Types or classification of Bones and Structural and functional classification of Joints.
- **Fundamentals Physiology:** Types of Muscle Contractions, Posture: Meaning, Types and Importance of good posture. Fundamental concepts: Angle of Pull, All or None Law, Reciprocal Innervations.
- **Respiratory system:** Structure of respiratory system Mechanism of Respiration (Internal and External). Role of Oxygen in Physical Training, Oxygen Debt, Second wind, Lung capacity, Vital capacity, Tidal Volume, Residual volume.
- **Blood and circulatory system:** Constituents of blood and their functions, Blood groups, structure of the heart, circulation of blood: Pulmonary, Systemic and General circulation. Blood pressure.
- **Digestive system:** structure and functions of the digestive system, Process of Digestion.

- **Nervous system:** Organs of Nervous System, Structure and functions of Brain and Spinal cord.
- **Endocrine System:** Functions of Glands, Pituitary, Thyroid, Parathyroid, Adrenal and Pancreas.
- **Excretory system:** Structure and Functions of the Kidney and the Skin
- Effects of training on cardiovascular system, respiratory system, muscular system; Fatigue and performance in sports

Part-V: Educational Technology and Methods of Teaching in Physical Education

- **Introduction:** Meaning and Definition of Education, Technology and Educational Technology, Objectives of Educational Technology and importance of Educational technology. Types of Education: - Formal, Informal and Non-Formal education, Educative Process, Devices and their importance in Teaching
- **Teaching Techniques and Teaching Aids:** Teaching Technique, Lecture method, Command method, Demonstration method, Imitation method, Part method. Whole method and Whole Part - Whole method. Presentation Technique: Personal and technical preparation, Command - Meaning of command, types of Command - Rhythmic and response command, uses of command in different situations. Teaching Aids - Meaning and Importance of teaching aids, Types of Teaching aids: - Audio, Visual, Audio visual aids, Chalk board, Digital boards, Pin boards, Charts, Model, Slide projector, Motion picture.
- **Tournaments:** Meaning of tournament and types of tournaments Rotation Method, Stair case method - Knock-out (Elimination), League (Round Robin), Knock-out cum league, League cum knock-out, Double league, Double knockout, Challenge. Method of drawing Fixtures: Seeding, Special Seeding. Intramural and Extramural and their importance, National Sports Day.
- **Lesson Planning and Teaching Innovations:** Lesson Planning - Meaning, Type, importance of lesson plan. General, particular / specific / coaching lesson plan. Various parts of lesson plan.

Part-VI: Olympic Movement

- **Origin of Olympic Movement:** Aims of Olympic movement, the early history of the Olympic movement. The significant stages in the development of the modern Olympic movement, Educational and Cultural values of Olympic movement. Origin and History of ancient Olympic games.
- **Modern Olympic Games:** Significance of Olympic Ideals, Olympic Rings, Olympic Flag, Ceremonial Flag, Olympic Symbol, Olympic Protocol for member countries, Queens Baton, Olympic Torch and protocol of Modern Olympics Inaugural and valedictory functions.

- **Different Olympic Games:** Para Olympic Games, Summer Olympics, Winter Olympics, Youth Olympic Games.
- **Committees Of Olympic Games:** International Olympic Committee Structure and Functions, National Olympic committees and their role in Olympic movement, Olympic medal winners of India till to date.

Part - VII: Kinesiology and Biomechanics

- **Introduction to Kinesiology and Sports Biomechanics:** Meaning and Definition of Kinesiology and Sports Biomechanics, Importance of Kinesiology and Sports Biomechanics in Physical Education and Sports, Terminology of Fundamental Movements, Planes and Axes, Gravity, Base, Centre of Gravity, Equilibrium, Line of Gravity.
- **Mechanical Concepts:** Force: Meaning, definition, types and its application in sports. Lever: Meaning, definition, types and its application in sports. Newton's Laws of Motion and their application in sports. Projectile: Factors influencing projectile trajectory.
- **Kinematics And Kinetics Of Human Movement:** Linear Kinematics - Distance and Displacement, Speed and Velocity, Acceleration.
- **Angular Kinematics:** Angular Distance and Displacement, Angular Speed and Velocity, Angular Acceleration.
- **Linear Kinetics:** Inertia, Mass, Momentum, Friction.
- **Angular Kinetics:** Moment of Inertia, Couple, Stability.

Part-VIII: Health Education and Environmental Studies

- **Health Education:** Definition of Health, Health Education. Aims, objectives and Principles of Health Education. Concepts of health: Biomedical, ecological and holistic concepts. Dimensions of Health: physical, mental and social dimensions. Factors affecting Health, School Health Programme: Health Instructions, Health Supervision, Health Service. Balanced diet, constituents of balanced diet.
- **Health Problems in India:** Communicable diseases: Chickenpox, Measles, Mumps, Influenza, Whooping cough, Typhoid, Malaria, Swine flu, Dengue and AIDS. Non-Communicable Diseases: Obesity, Hypertension, Stroke, Diabetes. Malnutrition. Other problems: Explosive Population, Personal and Environmental Hygiene for schools, Nutritional service, Health appraisal, Health record, Healthful school environment, first-aid and emergency care.
- **Environmental Science:** Definition, Scope, Need and Importance of environmental studies, Concept of environmental education. Celebration of various days in relation with environment. Swatch Bharat programme. Pollution of Plastic bags / covers, Role

of school in environmental conservation and sustainable development. Types of pollution- Air Pollution, Water Pollution, Soil Pollution, Noise Pollution & Thermal Pollution.

Part - IX: Measurement and Evaluation in Physical Education

- **Introduction to Test, Measurement Evaluation:** Meaning of Test, Measurement & Evaluation in Physical Education, Need & Importance of Test, Measurement & Evaluation in Physical Education, Principles of Evaluation, Criteria of good Test.
- **Classification and Administration of Test:** Classification of Tests, Administration of test: Pre, During and post-test, Methods of Scoring test.
- **Physical Fitness Tests:** AAHPER youth fitness test, JCR test, Cooper's 12-minute run/walk test, Harvard Step test, Indiana Motor Fitness Test, Barrow motor ability test.
- **Sports Skill Tests:** Lockhart and McPherson badminton test, Johnson basketball test, McDonald soccer test, Russell - Lange Volleyball test, Schmithals French Field Hockey test.

Part - X: Recreation and Leisure Management

- **Basics of Recreation:** Meaning, Definition of Recreation and Leisure Management, Importance, Values of Recreation, Principles of Recreation. Fundamental modes of Recreation, qualities and qualifications of Leaders of Recreation.
- **Recreation and Play:** Theories of Recreation, Theories of Play, Therapeutic Recreation, Therapeutic use of activity, Recreation for the life, Role of recreation and leisure on the human development.
- **Types of Recreational Activities:** Indoor, Outdoor games, Music, Dance, Picnics and Excursions.
- **Recreational Agencies:** Individual and Home agencies, Government Agencies, Voluntary Agencies, Private Agencies, Commercial Agencies.

Part – XI: Sports Training

- **Introduction to Sports Training:** Meaning and Definition of Sports Training, Aims and Objective of Sports Training, Principles of Sports Training.
- **Methods of Sports Training:** Continuous training, Interval training, Repetition training, Fartlek training, Resistance training, Circuit training, Plyometric training. Warm-up and warm-down,
- **Athletic diet:** Pre competition, during competition and post competition.
- **Training Components, Meaning & Definition and their development methods:** Speed, Strength, Endurance, Co-Ordination and Flexibility.

- **Training Process:** Load: Definition and Types of Load. Principles of Intensity and Volume of Load. Meaning and methods of Technical Training and Tactical Training.
- **Training program and planning:** Periodization - Meaning, Aims and types of Periodization: Preparatory, Competition, Transitional. **Planning:** Training session, Talent Identification and Development.

Part-XII: Concepts of Wellness Management

- **Wellness:** Definition and scope of wellness- Wellness continuum and health - Dimensions of wellness - Physical Wellness - Emotional Wellness Social Wellness - Spiritual wellness - Intellectual wellness and Environmental wellness.
- **Exercise and Wellness:** Physical wellness, exercise and physical health of different systems of human body, lifestyle diseases in relation to inactivity, Nutrition and exercise to physical wellness.
- **Stress Management:** Stress: Definition of Stress, Stress and Emotional health, Stress and physical health- Mechanism of stress and related degenerative diseases- Inter dependence of Spiritual wellness, Social wellness and Emotional wellness- Stress management techniques.
- **Fitness and Body Composition:** Health fitness components, body composition, muscular endurance, strength, Cardio Vascular fitness and flexibility, importance of cardio respiratory endurance. Obesity and health risk factors, childhood obesity and problems. Body composition indicators and measurements.

Part - XIII: Sports Psychology and Sociology

- **Introduction:** Meaning, Definition, Importance and scope of Sports Psychology. Characteristics of Various Stages of growth and development. Individual differences. Heredity and environment. Dynamics of Human behaviour, Play and theories of Play.
- **Learning, Personality, Motivation: Learning:** Types of Learning Theories of learning, Laws and principles of learning. Learning curve. Transfer of Learning. **Personality** - Meaning and definition of personality, characteristics of personality, Dimension of personality, Personality and Sports performance. **Motivation** - Meaning, Definition and importance of Motivation. Types of Motivation: Intrinsic & Extrinsic, Motivation techniques and their impact on sports performance. Attitude, interest, cognition, Emotions, Aggression, Anxiety and their effects on Sports performance. Mental Preparation Strategies: Attention, focus, Self- talk, Relaxation, Imaginary.
- **Relation between Social Sciences & Physical Education:** Meaning, Definition and Importance of Sociology, Orthodoxy, customs, culture, effects of culture on people life style. Tradition Festivals and sports. Socialization through Physical Education their role in promoting Physical Education and education. participation of both the men and women, Social integration through physical education

- Different methods of studying: Observation / Inspection method, Questionnaire method and Interview method.

Part - XIV: Sports Medicine, Physiotherapy and Rehabilitation

- **Sports Medicine:** Meaning, Definition, and Importance of Sports Medicine. Role of Physical Education Teachers and Coaches in Athletes Care and Rehabilitation. Common sports injuries and their prevention. **First Aid:** Definition of First Aid, **DRABC** formula (Danger, Response, Airways, Breathing and Circulation), **Artificial respiration technique:** Mouth to mouth, Mouth to nose respiration, CPR (Cardio Pulmonary Resuscitation). Treatments: Laceration, Blisters, Contusion, Strain, Sprain, Fracture, supports. Dislocation and Cramps. **Bandages:** Types of Bandages, Taping and supports
- **Physiotherapy:** Definition: Guiding principles of physiotherapy, Importance of physiotherapy. **Treatment Modalities:** Electrotherapy, infrared rays, Ultraviolet rays, short wave diathermy, ultra sound.
- **Hydrotherapy and Massage:** Hydrotherapy: Meaning and Methods, Cryotherapy, Thermo therapy, Contrast Bath, Whirlpool Bath, Steam Bath, Sauna Bath, Hot Water Fomentation. Massage: Meaning and importance of massage, Indications and contraindications of massage. Types of Manipulation, Physiological effects of Massage.
- **Therapeutic Exercise:** Definition, Principles and Importance of Therapeutic Exercises. Classification of Therapeutic exercise: Passive Movements (Relaxed, Forced and passive stretching) active movements (concentric, Eccentric and static). Free Mobility Exercise for Shoulder, Wrist, Fingers, Hip, Ankle, Foot joints and Neck exercises.

Part - XV: Sports Management

- **Concept of Management:** Meaning, Definition, Scope, concept and importance of Sports Management. Functions of management: Planning, organising, staffing, directing and controlling.
- **Leadership:** Meaning, Definition & Elements of Good leadership. Leadership styles, methods. Forms of Leadership: Autocratic, Laissez-faire, Democratic, Benevolent and Dictator. Qualities of administrative leader, Preparation of administrative leader & Effects of Good Leadership on Organizational performance.
- **Financial Management:** Financial management in Physical Education & sports in schools, Colleges and Universities. Criteria of good budget, Steps of Budget making. Model budget for a school. Procedures for purchases and constructions. Records and Registers.
- **Sports Management:** Sports Management in Schools, colleges and Universities. Planning, Directing and Controlling school, college and university sports programmes.

Establishing a Reporting system, Evaluation, rewards and punishment system. Event management: Organisation of major sports event.

Part - XVI: Concepts of Yoga

- **Introduction:** Meaning, Definition & Scope of Yoga, Aims, Objectives and functions of Yoga, Yoga practices in Upanishads and yoga sutra, Modern Trends in Yoga, Place and importance of Yoga in Physical Education and Sports.
- **Early Yoga Practices:** Astanga Yoga: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi. Streams of Yoga Practices: Hatha Yoga, Karma Yoga, Bhakti Yoga, Raja Yoga, Jnana Yoga.
- **Basic Yogic Methods:** Asana: Classification of Asanas, Sitting, Standing, Lying, Inverted asanas. Benefits of Asanas: Effects of Asanas on general health. Pranayama: Importance & impact on Muscular, Cardio Respiratory and Nervous System. Relaxation and meditation: Importance & impact on body at work and body at rest. Bandhas: Jalandhara, Mula, Udyana. Mudras: Chin, Yoga, Aswini, Anjali, Brahma Mudra. Kriyas: Neti, Nauli, Kapalabhati, Trataka, Dhauthi, Bhastrika.
- **Yoga Education:** Yoga Education for Youth Empowerment and human resource development. Difference between yogic practices and physical exercises, Yoga education centers in India and abroad, Competitions in Yoga Asanas.

Part - XVII: Officiating and Coaching

- **Introduction of Officiating and coaching:** Definition of officiating and coaching, Importance and principles of officiating, Relationship of Official and Coach with the Management, players and spectators, Measures of improving the standards of officiating and coaching.
- **Coach as a Mentor:** Duties of coach in general, pre, during and post game. Philosophy of coaching, responsibilities of a coach on and off the field, Psychology of coach in competition and coaching.
- **Duties of Official:** Duties of official in general, pre, during and post game in (Hockey, Football, Handball, Volleyball, Basketball, Table Tennis, Kabaddi, Kho- Kho, Throwball, Lawn Tennis, Badminton, Ball Badminton, Cricket, Softball and Tennikoit. Mechanism of officiating, position, Signals and movement, Ethics of officiating.
- **Qualities and Qualifications of Coach and Official:** Qualities and qualifications of good coach and good official, Layout of courts / fields and Rules of games, Layout of standard Track & Field and Rules, Eligibility rules of Inter schools and Intercollegiate tournaments.

Part - XVIII: Research and Statistics in Physical Education

- **Introduction to Research:** Definition of Research, Need and importance of Research in Physical Education and Sports. Classification of Research, Meaning of Research Problem, Location and criteria of Selection of Problem, Formulation of a Research Problem, Limitations and Delimitations.
- **Methods of Research:** Various methods of Research, need for surveying related literature, Literature Sources, Research Proposal.
- **Basics in Statistics:** Statistics: Meaning, Definition, Nature, Importance and its Types. Raw Score: Grouped Data, Un Grouped Data. Grouped Data: Discrete and Continuous Series. Construction of frequency Table: Class Intervals, Class Distribution. Normal Probability curve, Skewness and kurtosis. Graphical Presentation: Histogram, Bar Diagram, Frequency Polygon, Ogive curve, Pie Diagram.
- **Statistical Methods in Physical Education and Sports: Measures of Central Tendency:** Mean Median and Mode-Meaning, Definition, Importance, Advantages, Disadvantages and Calculation from Group and Ungrouped data. **Measures of Variability:** Meaning, importance. Computing Range, Mean Deviation, Quartile Deviation, Deciles, Percentile and Standard Deviation. **Co-relation:** Computing Karl Pearson Product Moment Co-relation and Karl Spearman Rank Order co-relation.