

Government of Andhra Pradesh  
Department of School Education  
State Council of Educational Research & Training  
**DSC -2024**

**PHYSICAL EDUCATION TEACHER (PET) SYLLABUS**

1. G.K & Current Affairs	–	05M
2. Perspectives in Education	–	05M
3. Physical Education Pedagogy	–	20M
4. Content	–	70M
Total		100M

**PART–I**

**General Knowledge and Current Affairs (Marks: 05)**

**PART–II**

**Perspectives in Education (Marks: 05)**

**1. History of Education:**

- The Education in Ancient India - Pre-Vedic and Post-Vedic period, Medieval Education.
- Education in Pre Independent era – Woods Dispatch (1854), Hunter Commission (1882), Hartog Committee (1929), Sargent Committee (1944).
- Education in Post Independent era - Mudaliar Commission (1952-53), Kothari Commission (1964-66), Ishwarbhai Patel committee (1977), NPE-1986, POA-1992

**2. Teacher Empowerment:**

- Need, interventions for empowerment, Professional code of conduct for teachers, Teacher motivation, Professional development of Teachers and Teacher organizations, National / State Level Organizations for Teacher Education, Maintenance of Records and Registers in Schools.

**3. Educational Concerns in Contemporary India:**

- Democracy and Education, Equality, Equity, Quality in Education, Equality of Educational opportunities.
- Economics of Education, Education as Human Capital, Education and Human Resource Development, Literacy - Saakshar Bharat Mission.
- Population Education, Gender-Equality, Equity and Empowerment of Women, Urbanization and migration, Life skills.
- Adolescence Education
- Value Education– Moral Value and Professional Ethics in Education.
- Health and Physical Education
- Inclusive Education-Classroom Management in Inclusive Education

- Role of Education in view of Liberalization, Privatization and Globalization
  - Programmes and Projects – APPEP, DPEP, Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level (NPEGEL), Rashtriya Madhyamika Shiksha Abhiyan(RMSA), Rashtriya Avishkar Abhiyan (RAA), KGBVs, Model Schools.
  - Incentives and special provisions – Mid Day Meals, Free Books, Scholarships, Awards, Welfare Hostels, Transportation.
  - Current Trends in Education
- 4. Acts/Rights:**
- Right of Children to Free and Compulsory Education Act-2009
  - Right to Information Act-2005
  - Child Rights
  - Human Rights.
- 5. National Curriculum Framework - 2005:** Perspectives, Guiding Principles, Learning and Knowledge, Teaching Learning Process, Assessments, Systemic Reforms.
- 6. National Education Policy - 2020**

### PART-III

#### Physical Education Psychology Pedagogy- Methods of teaching in Physical education and Educational Technology (Marks: 20) (As per D.P.Ed Curriculum)

- Meaning, Definition and Nature of Psychology, Child Psychology, Educational Psychology and Sports Psychology Importance of Sports Psychology. Motivation – Definition, Importance and types of motivation;
- Stages of Growth and Development of Children - Physical, mental, social and communication skill development, psycho-motor learning at different stages. Play-Theories of play;
- Meaning, Definition and Importance of Sociology and Sports Sociology; Culture and Sports, Socialization and Sports, Gender and Sports;
- Social Mobility – Sports Professionalization – Role of social factors on sports performance.
- Meaning, Definition, Importance and Factors Influencing on Methods of teaching;
- Principles of Presentation Technique and Class Management in physical education: Commands, Class Formation, Teaching aids: Audio visuals;
- Methods of classification of students: Mccloy method, YMCA method. Method of teaching: Command Method, Lecture Method, Demonstration Method,

Discussion Method, Part Method, Whole Method, Part-Whole Methods, Whole part whole method and their application in minor, major, rhythmic calisthenics and Gymnastics;

- Lesson Plan – Concept of lesson plan, Principles, importance of lesson plan. Preparation of Lesson Plan in Physical Education – Steps in lesson plan.

## **PART-IV**

**Physical Education Content (Marks: 70)**  
**(As per D.P.Ed Curriculum)**

### **1. Organization and Administration of Physical Education, Adoptive Physical Education & Corrective Exercises**

- Meaning, importance and principles of administration and organization; Factors influencing on good administration; Types of good Administration; Qualifications and qualities of good administration. Organisational setup at different levels: Schools, Colleges, Universities, Mandal, District, State & National
- Facilities and standards of Physical Education: Play fields, (Different play areas) Gymnasium, Swimming pool. Purchase & Care of sports equipments, Maintenance of Stock, Maintenance of records and Registers, Cash register, Tapal register, Stock Issue register, Attendance Register, Physical Fitness records, Health records and achievement records. Process of Verification, Write-off and Condemnation of Stock;
- Tournaments: Meaning of tournament and types of tournaments – 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. Rotation Method, Stair case method. Intramural and Extramural and their importance, Sports Day/ Play Day
- Time tables – Meaning and maintenance of Time table, factors influencing time table. Types of Physical Education periods; Budget: Meaning and importance of Budget, Budget income, expenditure and rules regarding expenditure, Preparation and Administration of Budget.
- Adapted Physical Education- Meaning, Definition, Objectives and Importance;
- Concept and Significance of Good Posture: Postural Deformities, Lordosis, Kyphosis, Kypholordosis, Scoliosis, Knockknees, Bow legs, flat foot and their Remedies, Corrective Exercises for Postural illnesses and deformities;

- Classification of various disabilities (Different abled) – physically challenged, mentally challenged, visually challenged, hearing impaired, Principles of adapted Physical Education programme;
- Co-curricular activities for the disabled - Indoor/ Outdoor programmes, rhythmic and dance activities, aquatic activities, fitness testing of disabled child.

## 2. Principles, Philosophy and History of Physical Education, Foundations of Physical Education

- Meaning and Definition of Education and Physical Education, Aim and Objectives of Physical Education, Role of Physical Education in General Education.
- Historical Development of physical education in India: Pre and post Independent India, in world (Greece, Germany),
- 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.
- Institutes bodies for Physical Education and Sports in India (YMCA, LNUPE, SAI, NSNIS, IOA, AIU, SGFI, CABPE, PYKKA, RGKA, SAAP, Physical Education & Sports Universities.
- Physical Education in relation to Humanities (Pedagogy, Psychology, Sociology, Statistics),
- Physical Education in relation to Science Disciplines: Anatomy, Physiology, Anthropometry, Kinesiology, Biomechanics, Nutrition.
- Heredity Traits, Unsynchronized development, Growth and Development at various levels - pre-adolescence, adolescence, adulthood, Differences in boys and girls, Classification of body types: Kretchmer's and Sheldon classification.
- Learning - meaning and definition, Theories of Learning - Trial and Error Theory, Conditioned Response Theory, Insightful Learning, Laws of Learning: Law of Readiness, Law of Use and Disuse, Law of Effect, Law of Recency, Law of Frequency, Types of Learning - Primary, associate, concomitant, Transfer of Learning, Learning Curve.

## 3. Basic anatomy, Physiology

- Meaning, Definition and importance of Anatomy and Physiology; Cell: Definition and importance, structure and functions of cell.
- Skeletal System: Bones, in Axial and Appendicular skeleton , structure , functions and types of bones – types of joints – structural and functional

classification, movements around joints, effects of exercise on skeletal system. Muscular System: Structural and functional classification of muscles, characteristics of muscles, fatigue and performance, palpated muscles around shoulder, elbow, hip and knee joint, Effects of Exercise on muscular system.

- Digestive system: Structure of digestive system, process of digestion, effects of exercise on digestive system. Respiratory system: Structure of human respiratory system, mechanism of respiration, oxygen debt and second wind, effects of exercise on respiratory system. Circulatory System: Composition and functions of blood, structure and functions of human heart, effects of exercise on circulatory system.
- Excretory system: Structure and functions of skin and kidneys, effects of exercise on Excretory system. Nervous system: Structure and functions of human brain and spinal cord.

#### **4. Health Education and Environmental Studies, sports injuries, Safety education and Physiology of exercise. Nutrition and Naturopathy**

- Meaning, Definition, Dimensions and Importance of Health; Principles of Health Education. Factors influencing health – Heridity, Environment and Health Habits; Coordinated school health programme – Health services, Health instruction, Health records and Health supervision
- Common Health Problems in India, Communicable and Non-Communicable Diseases, Hygiene – Personal, Environmental, Occupational Health, Cleanliness and awareness through educational activities;
- Environmental Studies - Meaning, natural and men made Hazards. Environmental pollution – Meaning, Definition, prevention and control of Air, Water, Soil and Sound Pollution;
- Natural Calamities – Cyclone, Tsunami, Earthquake – Their prevention and safety measures. WHO, UNICEF, UNESCO and other agencies.
- Sports Nutrition, Concept of Nutrition, Types of Nutrients, Balanced Diet;
- Obesity - Causes and Prevention; Weight Management through Life style Modification. Malnutrition; Naturopathy - Meaning, Definition and Principles of
- Naturopathy; Methods of Nature Cure, Fasting, Mud Therapy and Hydrotherapy;
- Application of Naturopathy, technique for various diseases like cold, cough, fever, constipation, diarrhea
- Meaning and Causes of Sports Injuries. Principles of prevention of sports injuries;

- Common Sports Injuries, symptoms and their treatment, Ligament sprain – Muscle sprain – Tennis elbow- Golfer's elbow, lower back strain – Dislocation – Fractures, Runners knee – Shin pain – Blisters – contusion, Abrasion, Laceration, Haematoma, Contusion;
- Definition of First-Aid, DRABC formula (Danger, Response, Airways, Breathing & Circulation), Artificial respiration techniques – Mouth to mouth, mouth to nose respiration, CPR(Cardio Pulmonary Resuscitation), First Aid for Haemorrhage, Fracture, Sprain and Strain, Drowning, Heat Stroke and Heat Exhaustion; Concept of PRICE(Prevention, Rest, Ice, Compression and Elevation)
- Rehabilitation - Meaning, Objectives and importance of Rehabilitation; Rehabilitation Modalities - Cold, Heat, Water, Radiation.

## 5. Yoga in Physical Education

- Meaning, Definition, Importance of Yoga. Streams of Yoga: Karma Yoga, Raja Yoga, Jnana Yoga, Bhakti Yoga, Hatha yoga and their values; Development of Yoga in India.
- Effects of Yogasanas on various systems of the body: Muscular, respiratory, Digestive , Circulatory systems.Types and importance of asanas with special reference to physical education and sports. Suryanamaskara of 12 stages;
- Meaning and importance of Ashtanga Yoga - Yama, Niyama, Asana, Pranayama,Pratyahar, Dharna, Dhyana, Samadhi;
- Shatkriyas, Bandhas: Jalandhar Bandha, Moolabandha, Udyana Bandha; Mudras: Yoga mudra, Chinmayamudra, Aswani mudra, Brahma mudra; Chakras: Types of chakras..

## 6. Recreation and Value education

- Meaning and Importance of Recreation in physical education, Principles of recreation in physical education, qualities and qualifications of recreation leader, worthy use of leisure time activities and their educational values;
- Organisation of recreational activities, individual and home agencies, government agencies, voluntary agencies, private agencies and commercial agencies: qualities of the recreation leader. Meaning and importance of picnic, Benefits of picnic, organisation of picnic, Essential constituents of good picnic.
- Inculcation of Human Values, Ethical values, Spiritual values through Sports.
- Social values, ethical values of officials and coaches on sports ground, ethical behaviour in sports and sportsman spirit, ethical judgment.

## 7. Sports training

- Meaning, Definition, Importance, Characteristics and Principles of Sports Training. Brief introduction on Detraining and Retraining;
- Training Load and Adaptation Process; Overload - Causes, Symptoms and Preventive Measures, recovery and its benefits;
- Definition and Types of Flexibility, Strength, Endurance, Speed and Coordinative Abilities;
- Training methods: Continuous training, Interval training, Repetition training, fartlek training, resistance training, circuit training, plyometric training. Methods of developing Fitness Components - Flexibility, Strength, Endurance, Speed and Coordinative Abilities, Talent Identification and nurturing of talent.

## 8. Information Technology in Physical Education Officiating and coaching, Tests and measurements in Physical education

- Officiating, Meaning, importance and principles of officiating. Qualities and qualifications of good official, Duties of Officials. (Hockey, Football, Handball, Volleyball, Basketball, Tabletennis, Kabaddi, Kho-Kho, Throwball, Tennis, Badminton, Ball Badminton, Cricket, Softball and Tennikoit), System of officiating in games;
- Rules of various games, Layout of courts and fields of games. Track and field – layout of track and field, rules of track and field events – Runs, Jumps, Throws Systems of officiating in track and field events;
- Coaching definition, principles and physiology of coaching, qualities and qualification and responsibilities of a good coach;
- Coaching camps, Skill, Technique, Tactics and strategies, System of playing games, selection of team, Brief description of teaching, coaching and training.
- Introduction to Computer System: definition, Characteristics, Principles, Parts of Computer and their functions, Generations, Input and Output Devices, Operating Systems, Memory (RAM, ROM);
- WINDOWS: Meaning and Features of Windows, , Start and Shutdown Computer, Creating Folders and Short cut Icons. Saving, Copying and Deleting Files, Use of Note Pad and Paint Brush;
- MS OFFICE: MS Word, MS Excel and MS Power point and introduction to Internet;
- Computer Applications in Physical Education: principles of development of self instruction materials special reference to school children, principles of designing e-learning modules.
- Meaning and definition of Test, Measurement and evaluation, Importance of Test, Measurement and Evaluation in the field of physical education and sports;



- Criteria of good test: Classification of tests, Test Administration (Pre, During and Post)
- Tests for different variables Speed – 50metre dash, Maximum speed - 30metres dash with flying start, cardio vascular endurance – Cooper’s 12 minutes run – walk test, Muscular endurance – Bent knee sit-ups – Explosive power – Standing Broad jump;
- Anthropometric Measurements: Height, Weight, Arm length, Leg length. BMI and its classification.





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- Adolescence Education
- Value Education– Moral Value and Professional Ethics in Education.
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- Inclusive Education-Classroom Management in Inclusive Education

- Role of Education in view of Liberalization, Privatization and Globalization
  - Programmes and Projects – APPEP, DPEP, Sarva Shiksha Abhiyan, National Programme for Education of Girls at Elementary Level (NPEGEL), Rashtriya Madhyamika Shiksha Abhiyan(RMSA), Rashtriya Avishkar Abhiyan (RAA), KGBVs, Model Schools.
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### PART-III

#### **PHYSICAL EDUCATION PEDAGOGY - EDUCATIONAL TECHNOLOGY AND METHODS OF TEACHING IN PHYSICAL EDUCATION (Marks: 20)** (As per B.P.Ed Curriculum)

- **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.
- **Team Teaching:** Meaning, Principles and advantage of team teaching.
- **Tournaments:** Meaning of tournament and types of tournaments – 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. Rotation Method, Stair case method. Intramural and Extramural and their importance, Sports Day/ Play Day.
- **Lesson Planning:** Meaning, Type, principles and lesson plan. General, particular/specific and coaching lesson plan.

## PART-IV

### Physical Education Content (Marks: 70) (As per B.P.Ed Curriculum)

#### **1. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION**

- Meaning, importance and principles of administration and organization; Factors influencing on good administration; Types of good Administration; Qualifications and qualities of good administration.
- Organizational setup at different levels: Schools, Colleges, Universities, Mandal, District, State & National.
- Facilities and standards of Physical Education: Play fields, (Different play areas) Gymnasium, Swimming pool.
- Purchase & Care of sports equipments, Maintenance of Stock, Maintenance of records and Registers, Cash register, Tapal register, Stock Issue register, Attendance Register, Physical Fitness records, Health records and achievement records. Process of Verification, Write-off and Condemnation of Stock;
- Tournaments: Meaning of tournament and types of tournaments – 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. Rotation Method, Stair case method. Intramural and Extramural and their importance, Sports Day/ Play Day
- Time tables – Meaning and maintenance of Time table, factors influencing time table. Types of Physical Education periods;
- Budget: Meaning and importance of Budget, Budget income, expenditure and rules regarding expenditure, Preparation and Administration of Budget.

#### **2. HISTORY OF PHYSICAL EDUCATION**

- Introduction: Meaning, Definition and Scope of Physical Education, Aims and Objectives of Physical Education, Importance of Physical Education in present era, Concepts and misconceptions about Physical Education, Relationship of Physical Education with General Education, Physical Education as Arts and Science.
- Historical Development of Physical Education: Historical Development of Physical Education Indus Valley Civilization Period, Vedic Period, Early Hindu Period and Later Hindu Period, Medieval Period, British Period, Physical Education in India (After 1947), Physical Education in Greece, Germany, Sweden Contribution of Akhadas and Vyayamsalas, H.V.P.Mandals,
- Institutions/Sports Bodies: YMCA, LNIPE, NSNIS, IOA, AIU, SAI, SAF, SGF, PYKKA, RGKA, SAAP, Physical Education & Sports Universities.
- Policies, Schemes, Awards: Bharata Ratna, Padmasri, Padmabhushan, Padmavibhushan, Arjuna, Dronacharya, Rajiv Khel Ratna, Ekalvya, Jhansi Laxmibhai, Abhimanyu. Trophies/Cups in Physical Education and Sports at State/National Level.

- Foundations of Physical Education: Foundations of Physical Education Philosophical foundation: Idealism, Pragmatism, Naturalism, Realism, Humanism, Existentialism and Indian Philosophy and Culture.
- Principles of Physical Education: Biological: Growth and development, Gender Difference: Physical, Physiological & Anthropometric (Sheldon and Kretchmer). Psychological: Types of Learning, learning curve, Laws and principles of learning, Attitude, interest, cognition, emotions and sentiments. Sociological: Society and culture, Social acceptance and recognition, Leadership, Social integration and cohesiveness.

### 3. BASIC ANATOMY, PHYSIOLOGY, KINESIOLOGY AND BIOMECHANICS

- Meaning and Definition of Anatomy, Physiology and their importance in Physical Education. Structure, function and division of cell. Tissues: Functions and types.
- Skeletal System: Axial and Appendicular Skeletal system, Types of Bones and Joints.
- 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.
- Respiratory system: Structure of respiratory system – Mechanism of Respiration (Internal and External).
- 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. Structure, properties and functions of skeletal muscles. Role of Oxygen in Physical Training, Oxygen Debt, Second wind, Lung capacity, Vital capacity, Tidal Volume, Residual volume.
- Endocrine system: Functions of glands, Pituitary, Thyroid, Parathyroid, Adrenal and Pancreas. Effects of training on cardiovascular system, Effects of training on respiratory system, Effects of training on muscular system, Fatigue and performance in sports.
- 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.
- Fundamentals Concept of Anatomy and Physiology: Definition of Joints, Structure and functional classification of joints and muscles. Types of Muscle Contractions,

- Posture: Meaning, Types and Importance of good posture. 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.

#### 4. HEALTH EDUCATION AND SPORTS INJURIES, SPORTS MEDICINE, PHYSIOTHERAPY AND REHABILITATION

- Health Education: Definition of Health, Health Education. Aims, objectives and Principles of Health Education.
- 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, 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, Historical background of environmental education, Celebration of various days in relation with environment, Pollution of Plastic bags/covers, Role of school in environmental conservation and sustainable development.
- Natural resources and related environmental issues: Water resources, food resources and land resources, Definition, effects and control measures of Air Pollution, Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution, Role of pollution control board.
- 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, 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.

## 5. YOGA IN PHYSICAL EDUCATION

- Introduction: Meaning, Definition & Scope of Yoga, Aims, Objectives and functions of Yoga.
- 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.
- Chakras: Types and Importance.

## 6. RECREATION AND LEISURE MANAGEMENT

- Introduction: Meaning, Definition of Recreation and Leisure Management, Importance, Values of Recreation, Principles of Recreation. Fundamental needs 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: Organization and Administration of Recreational agencies, Individual and Home agencies, Government Agencies, Voluntary Agencies, Private Agencies, Commercial Agencies, Modern trends in recreation and Leisure Management, Issues related to Recreation and Leisure Management.

## 7. SPORTS TRAINING

- Introduction: 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: Strength: Meaning and Definition, Methods of Strength Development. Speed: Meaning and Definition, Methods of Speed Development. Endurance: Meaning and Definition, Methods of Endurance Development. Coordination: Meaning and Definition, Methods of coordination Development. Flexibility: Meaning and Definition, Methods of Flexibility Development.
- Training Process: Load: Definition and Types of Load. Principles of Intensity and Volume of stimulus. Technical Training: Meaning and Methods of Technical Training. Tactical Training: Meaning and Methods of Tactical Training.
- Training program and planning: Periodization: Meaning and types of Periodization. Aims and Content of Periods: Preparatory, Competition, Transitional. Planning: Training session, Talent Identification and Development.

## 8. 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.
- STRESS MANAGEMENT: Stress: Definition of Stress, 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. Body composition indicators and measurements. Obesity and health risk factors, childhood obesity and problems.



## 9. SPORTS MANAGEMENT

- Concept of management: Meaning, definition, scope, concept and importance of sports management. Functions of management: Planning, Organizing, Staffing, Directing, and Controlling.
- Leadership: Meaning, Definition & Elements of good 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 and 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.

## 10. 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.
- Various methods of Research, Need for surveying related literature, Literature Sources, Research Proposal.
- Basics in 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.
- 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.
- Correlation: Computing Karl Pearson Product Moment Co-relation and Karl Spearman Rank Order co-relation.

## 11. OFFICIATING AND COACHING

- Introduction of officiating and coaching: Definition of officiating and coaching, Importance and principles of officiating, Relationship of official and coach with 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, Throw ball, Tennis, Badminton, Ball Badminton, Cricket, Softball and Tennikoit). Philosophy of officiating, 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.

## 12. 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: Theories of learning, 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. Aggression, Anxiety and their effects on Sports performance.

## 13. OLYMPIC MOVEMENT

- Origin of Olympic Movement Aims of Olympic movement, the early history of the Olympic movement, and the significant stages in the development of the modern Olympic movement, Educational and cultural values of Olympic movement.
- Modern Olympic Games Significance of Olympic Ideals, Olympic Rings, Olympic Flag, Olympic Protocol for member countries, Olympic Code of Ethics, Olympism in action, Sports for all.
- 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 commission and their functions, Olympic medal winners of India till to date.

## 14. 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, Harward 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

