

**PHYSICAL EDUCATION**

**(Subject Code-50)**

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**Unit – I :**

Introduction to and definition, aim and objectives of Physical Education and meaning of related terms – Health, Fitness, Physical Activity, Exercise, Wellness and Recreation.

Philosophies applied in Physical Education – Idealism, Naturalism, Realism, Pragmatism, Existentialism, Humanism.

Biological basis of physical Education– Benefits of exercise, motor development and growth and exercise, exercise. and well – being. Sex and age characteristics of Adolescent, Interplay of Heridity & Environment in Physical Activity and Sports.

Psychological basis of Physical Education – Play and Play theoriesa. General principles of Growth and Development, Principles of Motor – Skill Acquisition, Transfer of Training. Physical Activity and Mental Fitness.

Sociological basis of Physical Education – Socialization process. Social nature of men and physical activity. Physical activity for Healthy Society.

Sports as Cultural Heritage of Mankind, Customs, Traditions. National Integration, cooperation and peace through sports.

Physical Education in ancient Greece, Rome and Contemporary Germany, Sweden, Denmark and Russia.

Olympic Movement – Historical development of Ancient and Modern Olympic Games.

Planning, Policies and Development of Physical Education and Sports in India.

**Unit – II :**

Physiology Exercise of Muscular activity and effect of exercise and training.

Neurotransmission and Neuromuscular Movement mechanism of Exercise.

Physiology & Respiration and blood circulation and effect of exercise and training.

Metabolism, Bioenergetics and Recovery process.

Physiological Factors influencing performance in Sports.

Athletic Injuries – their management and Rehabilitation.

Therapeutic Modalities. Massage manipulation and Therapeutic Exercise.

Ergogenic Aids and Doping. Anti Doping Education.

**Unit – III :**

Classification of Joints and Mesules; and their movements on different Planes and Axes.

Kinetics & Kinematics-linear and angular. Leverage system.

Laws of Motion, Principles of Equilibrium and Force, Spin. Air and fluid mechanisms in sports.

Posture, Postural deformities and their correction.

Gait Analysis. Egometry in Sports.

Muscular Analysis of Motor Movement.

Kinesiological Analysis of fundamental movements – (Running, Jumping, Throwing, Catching, Pulling and Pushing).

Kinesiological Analysis of various Sports Activities.

**Unit – IV :**

Concept of Sports and Exercise Psychology.  
Learning process – theories and laws of learning.  
Motivation- theories technique and dynamics of motivation in sports.  
Psychological factors affecting sports performance and their management – viz., Stress, Anxiety, Tension, Aggression and Emotions.  
Personality- its dimensions, theories, types and sports performance.  
Cognitive process & Individual differences and their impact on skill learning and performance.  
Group Dynamics, Team Cohesion and Leadership in Sports.  
Development Psychological traits through Exercise and Sports.  
Economics and Sports – Economical benefits of Physical Activities.  
Sociometric in Sports.  
Sports Diplomacy.  
Sports Journalism and Public Relation  
Educational Technology in Physical Education. Information, Communication and Technology in Spors.

**Unit – V :**

Development of Teacher Education in Physical Education.  
Professional courses in Sports and Physical Education in India.  
Professional Ethics.  
Qualities and Qualifications of Physical Educational Personnel.  
Principles of Curriculum Planning.  
Course content for Academic and Professional Courses.  
Age characteristics of pupils and selection of activities.  
Construction of class and school time table.  
Women in Sports. Global Gender Equality Agenda.  
Inclusive Physical Education.

**Unit – VI :**

Health – Guiding principles of health and Health Education.  
Nutrition and Dietary manipulations.  
Health – related fitness, Obesity and its management.  
Environmental and Occupational hazards and First Aid.  
Communicable Diseases – their preventive and therapeutic aspect.  
School health program and personal hygiene.  
Theories and principles of Recreation. Leisure activities.  
Adventure and Recreation program for various categories of people.

**Unit – VII :**

Sports Pedagogy and Coaching philosophies.  
Characteristics and principles of sports training.  
Training load and Recovery.  
Training methods and specific training programme for development of various motor qualities.  
Technical and Tactical preparation for sports.  
Training Plan and Periodisation.  
Sports Talent Identification – process and procedures.  
Preparing for competition – (build up competitions, main competition, competition frequency, psychological preparation).  
Rules of Games and Sports and their interpretations.

**Unit – VIII :**

Nature and Classification of Research.  
Formulation, location and selection of research problem.  
Sampling – process and techniques.  
Methods of Research. Research Methodology  
Data collection – tools and techniques.  
Statistical techniques of data analysis – measures of central tendency and variability, correlation, normal probability curve, t – test and f – tests, chi – square, z – test.  
Hypothesis – formulation, types and testing.  
Writing Research Proposal and Report.  
Plagiarism and Research Ethics.

**Unit – IX :**

Concept of Measurement and Evaluation.  
Principles of Measurement and Evaluation  
Classifications and Construction of Tests.  
Criteria of Test Evaluation.  
Concepts and Assessment of Physical Fitness, Motor Fitness, Motor Ability and Motor Educability.  
Administration of Testing Programme.  
Physical Fitness and Motor Fitness Test.  
Skill and Knowledge Test for Badminton, Basketball, Hockey, Tennis, Soccer, Volleyball.  
Testing Psychological variables – Anxiety, Aggression, Team Cohesion, Motivation, Self – Concept.  
Physiological Testing Anaerobic and Aerobic Capacity, Lung parameters.  
Kinthropometric Measurements, Body types, Body Composition and Somato-type.

**Unit – X :**

Concept and Principles of Sports Management.  
Organization and functions of sports bodies.  
Tournaments- Intramurals and Extramurals, Minor, Major, Competition and Championship.  
Management of infrastructure, equipments, finance and personnel.  
Methods and Techniques of Teaching.  
Principles of Planning Physical Education Lessons.  
Pupil – teacher interaction and relationship.  
Concept of techniques of Supervision.  
SWOT Analysis  
Sports Engineering – Equipments, Facility, Instrumentation, Surface Attire and Accessories-Designing, Manufacturing and Uses.