

**PHYSICAL EDUCATION**  
**(DIPLOMA STANDARD)**

**SUBJECT CODE: 354**

**UNIT-I : PRINCIPLES AND HISTORY OF PHYSICAL EDUCATION**

Meaning of Physical Education, Physical Culture, Physical Training. Aim and Objectives of Physical Education. Physical Education in Ancient Greece – Sparta and Athens – Ancient and Modern Olympic Games – Asian Games. Physical Education in India – SAI, SDAT, School Level Competitions in Tamil Nadu. School games federation of India.

**UNIT-II: BIOLOGICAL FOUNDATIONS AND TRAINING METHODS**

Biological foundation: Growth and Development – Heredity and Environment, Muscle tone, Athletic heart – Reciprocal innervations – Vital capacity – Chronological age – Physiological age – mental age. Types of Muscular Contractions. Periodisation in Training. Training Load and Components of Training Load Training methods: Types of Training - Weight training - Circuit training - Fartlek Training -Interval Training.

**UNIT-III: TESTS, MEASUREMENT, AND EVALUATION**

Meaning of the terms: Test, Measurement, and Evaluation. Criteria for Evaluation: Validity, Reliability, Objectivity. JCR Motor Fitness test, Muscular Fitness : Kraus Weber Minimum Muscular Fitness Test, Newton Motor Ability Test, Cardio vascular test: Harvard step test, 12 minutes run/walk test. Badminton: Miller Wall Volley Test. Basketball: Johnson Basketball Test,. Hockey: Friedel Field Hockey Test,. Volleyball: Russel Lange Volleyball Test, Brady Volleyball Test. Football: MC-Donald Soccer Test.

**UNIT-IV: ANATOMY AND PHYSIOLOGY**

Cell structure and properties, Tissues, Organs, Axial and appendicular Skelton. Classification of joints . Types of muscles. Blood, Composition of Blood, Blood groups,

Functions of Blood. Structure and Functions of Heart, Structure and Functions of Lungs, Structure and function of Tongue, Teeth, and Ear. Central Nervous system- Brain - Spinal cord -Reflex action, Autonomous Nervous system Effects of exercise on the various systems of the body: Skeletal System, Muscular System, Circulatory System, Respiratory System.

### **UNIT-V: HEALTH EDUCATION, SPORTS INJURIES AND PHYSIOTHERAPY**

Meaning of Health Education – Health Services and Supervision – Nutrition and Diet, Components of Food. Infection immunity – Causes of Disease – Malaria, Small Pox, Dysentery, Mumps, Typhoid. Sports injuries – Meaning – Importance – Treatment for hock, Poisoning, Drowning, Bleeding, Fractures, Sprain, Strain, Dislocation, Fainting, Abrasion, Dog bite, First Aid Box, Cuts – Kinds of Bandage, Sun stroke- General rule for burns – Snake Bite. Physiotherapy – Definition – importance of Physiotherapy, Principles of Physiotherapy – Electro therapy – Hydro therapy –Thermo therapy, Massage – Posture – Postural Deformities.

### **UNIT-VI : SPORTS PSYCHOLOGY AND FITNESS**

Meaning of Sports Psychology and its importance. Motor Learning and motor performance. Basic consideration in Motor fitness: Body build, Mental aspects, Sense Perception: Vision, Kinesthesia, Tactile. Emotional effects: Tension, Anxiety, Stress. Theories of learning: Conditioned Response – Trial and Error – insightful. Theories of Play. Physical fitness, Reaction time, Movement time, Types and Components of Physical fitness.

### **UNIT – VII : YOGA**

Meaning and Definition of Yoga. Eight limbs of yoga: Yama – Niyama – Asana – Pranayama- Pratyahara – Dharana – Dhyana – Samadhi. International Yoga Day. Suryanamaskar. Breathing exercises and Asanas towards Promotion of Physical, Mental and Emotional Health.

## **UNIT-VIII : METHODS AND MANAGEMENT IN PHYSICAL EDUCATION**

Meaning and importance of methods in Physical Education- factors influencing methods. Presentation Techniques - Class Management - Teaching aids - various methods of Teaching - Types of Tournaments , Preparation of Fixtures for Knock out, League and Combination Tournaments. Intramurals and Extramural. Different levels of Organization schools, Colleges and Universities - Guiding principles of organization - Records and Registers - Construction and maintenance of Swimming pool and Gymnasium.

## **UNIT-IX : RULES OF GAMES AND SPORTS**

Ground making maintenance, Equipments, Duties of Officials and Rule of sports and games: Basketball, Ball Badminton, Badminton, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Tennis, Table Tennis, Volleyball.

## **UNIT-X : TRACK AND FIELD**

Layout of standard track (400 meters), Method of calculating Stagers and Arch start. Relay zone marking for 4\*100 and 4\*400. Layout of Circle/Runway and sector for : Javelin, Shot-put, Discuss, Hammer throw , Long Jump, Triple Jump and High Jump. Measurements of Standard Athletic Equipments.

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