

## PHYSICAL EDUCATION (048)

Class XII (2022–23)

Theory

Max. Marks 70

### Unit I Management of Sporting Events

- Functions of Sports Events Management (Planning, Organising, Staffing, Directing & Controlling)
- Various Committees & their Responsibilities (pre; during & post)
- Fixtures and its Procedures – Knock-Out (Bye & Seeding) & League (Staircase & Cyclic)

### Unit II Children & Women in Sports

- Common Postural Deformities - Knock Knee; Bow Legs; Flat Foot; Round Shoulders; Lordosis, Kyphosis, and Scoliosis and their corrective measures
- Special consideration (Menarche & Menstrual Dysfunction)
- Female Athletes Triad (Osteoporosis, Amenorrhea, Eating Disorders)

### Unit III Yoga as Preventive measure for Lifestyle Disease

- Obesity: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Pachimottansana, Ardha – Matsyendrasana, Dhanurasana, Ushtrasana, Suryabedhan pranayama.
- Diabetes: Procedure, Benefits & Contraindications for Katichakrasana, Pavanmuktasana, Bhujangasana, Shalabhasana, Dhanurasana, Supta-vajarasana, Paschimottanasana, Ardha-Mastendrasana, Mandukasana, Gomukasana, Yogmudra, Ushtrasana, Kapalabhati.
- Asthma: Procedure, Benefits & Contraindications for Tadasana, Urdhwahastottansana, UttanMandukasana, Bhujangasana, Dhanurasana, Ushtrasana, Vakrasana, Kapalabhati, Gomukhasana Matsyaasana, Anuloma-Viloma.
- Hypertension: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Uttanpadasana, Ardha Halasana, Sarala Matyasana, Gomukhasana, UttanMandukasana, Vakrasana, Bhujangasana, Makarasana, Shavasana, Nadi-shodhanapranayam, Sitlipranayam.

### Unit IV Physical Education & Sports for CWSN (Children with Special Needs - *Divyang*)

- Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics)
- Advantages of Physical Activities for children with special needs.
- Strategies to make Physical Activities assessable for children with special needs.

### Unit V Sports & Nutrition

- Concept of balance diet and nutrition
- Macro and Micro Nutrients: Food sources & functions
- Nutritive & Non-Nutritive Components of Diet

### Unit VI Test & Measurement in Sports

- Fitness Test – SAI Khelo India Fitness Test in school:
  - Age group 5-8 yrs/ class 1-3: BMI, Flamingo Balance Test, Plate Tapping Test
  - Age group 9-18yrs/ class 4-12: BMI, 50mt Speed test, 600mt Run/Walk, Sit & Reach flexibility test, Strength Test (Abdominal Partial Curl Up, Push-Ups for boys, Modified Push-Ups for girls).
- Computing Basal Metabolic Rate (BMR)

- Rikli & Jones - Senior Citizen Fitness Test
  - I. Chair Stand Test for lower body strength
  - II. Arm Curl Test for upper body strength
  - III. Chair Sit & Reach Test for lower body flexibility
  - IV. Back Scratch Test for upper body flexibility
  - V. Eight Foot Up & Go Test for agility
  - VI. Six Minute Walk Test for Aerobic Endurance

### **Unit VII Physiology & Injuries in Sports**

- Physiological factors determining components of physical fitness
- Effect of exercise on Muscular System
- Effect of exercise on Cardio-Respiratory System
- Sports injuries: Classification (Soft Tissue Injuries -Abrasion, Contusion, Laceration, Incision, Sprain & Strain; Bone & Joint Injuries - Dislocation, Fractures - Green Stick, Comminuted, Transverse Oblique & Impacted)

### **Unit VIII Biomechanics & Sports**

- Newton's Law of Motion & its application in sports
  - Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports
- Friction & Sports
- Projectile in Sports

### **Unit IX Psychology & Sports**

- Personality; its definition & types (Jung Classification & Big Five Theory)
- Meaning, Concept & Types of Aggressions in Sports
- Psychological Attributes in Sports – Self Esteem, Mental Imagery, Self Talk, Goal Setting

### **Unit X Training in Sports**

- Concept of Talent Identification and Talent Development in Sports
- Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle.
- Types & Method to Develop – Strength, Endurance and Speed
- Types & Method to Develop – Flexibility and Coordinative Ability

### **Practical**

**Max. Marks 30**

01. Physical Fitness Test: SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)\* 6 Marks
02. Proficiency in Games and Sports  
(Skill of any one IOA recognised Sport/Game of Choice)\*\* 7 Marks
03. Yogic Practices 7 Marks
04. Record File \*\*\* 5 Marks
05. Viva Voce (Health/ Games & Sports/ Yoga) 5 Marks

\* Test for CWSN (any 4 items out of 27 items. One item from each component: Aerobic Function, Body Composition, Muscular strength & Endurance, Range of Motion or Flexibility)

\*\*CWSN (Children With Special Needs – Divyang): Bocce/Boccia , Sitting Volleyball, Wheel Chair Basketball, Unified Badminton, Unified Basketball, Unified Football, Blind Cricket, Goalball, Floorball, Wheel Chair Races and Throws, or any other Sport/Game of choice.

\*\*Children With Special Needs can also opt any one Sport/Game from the list as alternative to Yogic Practices. However, the Sport/Game must be different from Test - 'Proficiency in Games and Sports'

#### **\*\*\*Record File shall include:**

- ❖ Practical-1: Fitness tests administration.
- ❖ Practical-2: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.
- ❖ Practical-3: Anyone one IOA recognised Sport/Game of choice. Labelled diagram of Field & Equipment. Also mention its Rules, Terminologies & Skills.

**Note: For PE (048) Curriculum, Handbooks are already available at Board's website. However, the revised version of these Handbooks would soon be available that include following topics at Board's Academic website [www.cbseacademic.nic.in](http://www.cbseacademic.nic.in)**

**Class XI Handbook:**

**Unit I Changing Trends & Career in Physical Education** - Concept, Aims & Objectives of Physical Education; Development of Physical Education in India – Post Independence; Changing Trends in Sports- playing surface, wearable gears and sports equipment, technological advancements; Career Options in Physical Education; Khelo-India and Fit-India Program

**Unit II Olympism** - Olympism – Concept and Olympics Values (Excellence, Friendship & Respect); Olympic Value Education – Joy of Effort, Fair Play, Respect for Others, Pursuit of Excellence, Balance Among Body, Will & Mind; Ancient and Modern Olympics; Olympics - Symbols, Motto, Flag, Oath, and Anthem; Olympic Movement Structure - IOC, NOC, IFS, Other members

**Unit III Yoga** - Meaning & Importance of Yoga; Introduction to Ashtanga Yoga; YogicKriyas (Shat Karma); Pranayama and its types; Active lifestyle and Stress Management through Yoga

**Unit IV Physical Education & Sports for CWSN** (Children with Special Needs - Divyang) - Concept of Disability and Disorder; Types of Disability, its causes & nature (Intellectual disability, Physical disability); Disability Etiquettes; Aim & Objective of Adaptive Physical Education; Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & Special Educator)

**Unit V Physical Fitness, Health and Wellness** - Meaning and Importance of Wellness, Health and Physical Fitness; Components/Dimensions of Wellness, Health and Physical Fitness; Traditional Sports & Regional Games for promoting wellness; Leadership through Physical Activity and Sports; Introduction to First Aid – PRICE

**Unit VI Test, Measurement & Evaluation** - Concept of Test, Measurement & Evaluation in Physical Education & sports; Importance of Test, Measurement and Evaluation in Sports; Classification of Test in Physical Education and Sports; Test administration guidelines in physical education and sports; BMI, Waist-Hip Ratio, Skin fold Measures (3-site)

**Unit VII Fundamentals of Anatomy, Physiology in Sports** - Definition and Importance of Anatomy and Physiology in exercise and sports; Functions of Skeletal system, classification of bone and types of joints; Properties and Functions of Muscles; Function and Structure of Circulatory system and heart; Function and Structure of Respiratory system

**Unit VIII Fundamentals of Kinesiology and Biomechanics in Sports** - Definition and Importance of Kinesiology and Biomechanics in sports; Principles of Biomechanics; Kinetics and Kinematics in Sports; Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation; Axis and Planes – Concept and its application in body movements

**Unit IX Psychology & Sports** - Definition & Importance of Psychology in Physical Education & Sports; Developmental Characteristics at Different Stages of Development; Adolescent Problems & their Management; Team Cohesion and Sports; Introduction to Psychological Attributes: Attention, Resilience, Mental Toughness

**Unit X Training and Doping in Sports** - Concept and Principles of Sports Training; Training Load: Over Load, Adaptation, and Recovery; Warming-up & Limbering Down – Types, Method & Importance; Concept of Skill, Technique, Tactics & Strategies; Concept of Doping and its disadvantages

**Class XII Handbook:**

**Unit I Management of Sporting Events** - Functions of Sports Events Management (Planning, Organising, Staffing, Directing & Controlling); Various Committees & their Responsibilities (pre; during & post); Fixtures and its Procedures – Knock-Out (Bye & Seeding) & League (Staircase & Cyclic); Intramural & Extramural – Meaning, Objectives & Its Significance; Community Sports – Purpose and benefits

**Unit II Children & Women in Sports** - Exercise Guidelines of WHO for different age groups; Common Postural Deformities - Knock Knee; Bow Legs; Flat Foot; Round Shoulders; Lordosis, Kyphosis, and Scoliosis and their corrective measures; Women participation in Sports – Physical, Psychological and Social benefits; Special consideration (Menarche & Menstrual Dysfunction); Female Athletes Triad (Osteoporosis, Amenorrhea, Eating Disorders)

**Unit III Yoga as Preventive measure for Lifestyle Disease** - Obesity: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Pachimottansana, Ardha – Matsyendrasana, Dhanurasana, Ushtrasana, Suryabedhan pranayama; Diabetes: Procedure, Benefits & Contraindications for Katichakrasana, Pavanmuktasana, Bhujangasana, Shalabhasana, Dhanurasana, Supta-vajarasana, Paschimottanasana, Ardha-Mastendrasana, Mandukasana, Gomukasana, Yogmudra, Ushtrasana, Kapalabhati; Asthma: Procedure, Benefits & Contraindications for Tadasana, Urdhwahastottansana, Uttan Mandukasana, Bhujangasana, Dhanurasana, Ushtrasana, Vakrasana, Kapalabhati, Gomukhasana Matsyaasana, Anuloma-Viloma; Hypertension: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Uttanpadasana, Ardha Halasana, Sarala Matyasana, Gomukhasana, Uttan Mandukasana, Vakrasana, Bhujangasana, Makarasana, Shavasana, Nadi-shodhanapranayam, Sitlipranayam; Back Pain and Arthritis: Procedure, Benefits & Contraindications of Tadasana, Urdhwahastottansana, Ardha-Chakrasana, Ushtrasana, Vakrasana, Sarala Matsyendrasana, Bhujangasana, Gomukhasana, Bhadrasana, Makarasana, Nadi-Shodhana Pranayam;

**Unit IV Physical Education & Sports for CWSN (Children with Special Needs - Divyang) – Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics); Concept of Classification and Divisioning in Sports; Concept of Inclusion in sports, its need, and Implementation; Advantages of Physical Activities for children with special needs; Strategies to make Physical Activities assessable for children with special needs**

**Unit V Sports & Nutrition** - Concept of balance diet and nutrition; Macro and Micro Nutrients: Food sources & functions; Nutritive & Non-Nutritive Components of Diet; Eating For Weight Control – A Healthy Weight, The Pit falls of Dieting, Food Intolerance & Food Myths; Importance of Diet in Sports and Pre, During and Post requirement

**Unit VI Test & Measurement in Sports** - Fitness Test – SAI Khelo India Fitness Test in school [Age group 5-8 yrs/ class 1-3: BMI, Flamingo Balance Test, Plate Tapping Test; Age group 9-18yrs/ class 4-12: BMI, 50mt Speed test, 600mt Run/Walk, Sit & Reach flexibility test, Strength Test (Abdominal Partial Curl Up, Push-Ups for boys, Modified Push-Ups for girls)]; Measurement of Cardio-Vascular Fitness – Harvard Step Test – Duration of the Exercise in Seconds x100/5.5 X Pulse count of 1-1.5 Min after Exercise; Computing Basal Metabolic Rate (BMR); Rikli & Jones - Senior Citizen Fitness Test - Chair Stand Test for lower body strength, Arm Curl Test for upper body strength, Chair Sit & Reach Test for lower body flexibility, Back Scratch Test for upper body flexibility, Eight Foot Up & Go Test for agility, Six Minute Walk Test for Aerobic Endurance; Johnsen – Methney Test of Motor Educability (Front Roll, Roll, Jumping Half-Turn, Jumping full-turn)

**Unit VII Physiology & Injuries in Sports** - Physiological factors determining components of physical fitness; Effect of exercise on Muscular System; Effect of exercise on Cardio-Respiratory System; Physiological changes due to aging; Sports injuries: Classification (Soft Tissue Injuries – Abrasion, Contusion, Laceration, Incision, Sprain & Strain; Bone & Joint Injuries - Dislocation, Fractures - Green Stick, Comminuted, Transverse Oblique & Impacted)

**Unit VIII Biomechanics & Sports** - Newton's Law of Motion & its application in sports; Types of Lever and its application in Sports; Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports; Friction & Sports; Projectile in Sports

**Unit IX Psychology & Sports** - Personality; its definition & types (Jung Classification & Big Five Theory); Motivation, its type & techniques; Exercise Adherence: Reasons, Benefits & Strategies for Enhancing it; Meaning, Concept & Types of Aggressions in Sports; Psychological Attributes in Sports – Self Esteem, Mental Imagery, Self Talk, Goal Setting

**Unit X Training in Sports** - Concept of Talent Identification and Talent Development in Sports; Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle; Types & Method to Develop – Strength, Endurance and Speed; Types & Method to Develop – Flexibility and Coordinative Ability; Circuit Training - Introduction & its importance