

28. PHYSICAL EDUCATION

(Code No. 048)

(APRIL 2016 - MARCH 2017)

It covers the following:

- I. Eligibility conditions for opting Physical Education as an elective subject
- II. Conditions for granting affiliation to the schools for offering Physical Education as an elective subject
- III. Theory syllabus for class XI (Part A & B)
- IV. Theory syllabus for class XII (Part A & B)
- V. Part C - Practical - Distribution of marks for the practical

I. ELIGIBILITY CONDITIONS FOR OPTING PHYSICAL EDUCATION

The following category of students shall be permitted to opt for the Physical Education:

- Those granted permission to join the course should be medically fit to follow the Physical Education curriculum, theory and practical, prescribed by the Board.
- Those who have represented the school in the Inter School Sports and Games competitions in any game.
- The student should undergo the prescribed physical fitness test and secure a minimum of 40% score.

II. CONDITIONS FOR GRANTING AFFILIATION TO SCHOOLS FOR OFFERING PHYSICAL EDUCATION AS AN ELECTIVE SUBJECT

Only those schools satisfying the following conditions will be permitted to offer Physical Education as a course of study at +2 stage as an elective subject:

- (i) The school should have adequate open space to accommodate at least 200 M track and play fields for minimum three games/sports.
- (ii) The teacher handling the elective programme of Physical Education should hold a Master's Degree in Physical Education.
- (iii) The school should provide adequate funds for Physical Education and Health Education for purchase of equipment, books on Physical Education and also for the maintenance of sports facilities.

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CLASS XI (2016-17)

Theory

Max. Marks 70
Periods: 180

Unit I Changing Trends & Career in Physical Education

- Define Phy. Edu., Its Aims & Objectives
- Development of Phy. Edu. - Post Independence
- Concept & Principles of Integrated Phy. Edu.

- Concept & Principles of Adaptive Phy. Edu.
- Special Olympic Bharat
- Career Options In Phy. Edu.

Unit II Physical Fitness, Wellness & Lifestyle

- Meaning & Importance of Physical Fitness, Wellness & Lifestyle
- Components of physical fitness
- Components of wellness
- Preventing Health Threats Through Lifestyle Change
- Components of Positive Lifestyle

Unit III Olympic Movement

- Ancient & Modern Olympics
- Olympic Symbols, Ideals, Objectives & Values
- International Olympic Committee
- Indian Olympic Association
- Dronacharya Award, Arjuna Award & Rajiv Gandhi Khel Ratna Award
- Organisational set-up of CBSE Sports & Chacha Nehru Sports Award
- Paralympic Movement

Unit IV Yoga

- Meaning & Importance of Yoga
- Yoga as an Indian Heritage
- Elements of Yoga
- Introduction to - Asanas, Pranayam, Meditation & Yogic Kriyas
- Physiological benefits of Asana & Pranayam
- Prevention & Management of Common Lifestyle Diseases; Obesity, Asthma, Diabetes, Hyper-Tension & Back-Pain

Unit V Doping

- Concept & classification of doping
- Prohibited Substances & Methods
- Athletes Responsibilities
- Side Effects of Prohibited Substances
- Ergogenic aids & doping in sports
- Doping control procedure

Unit VI Physical Activity Environment

- Introduction to physical activity
- Concept & need of sports environment

- Essential elements of positive sports environment
- Principles of physical activity environment
- Components of health related fitness
- Behaviour change technique for physical activity
- Exercise Guidelines at different stages of growth

Unit VII Test & Measurement in Sports

- Define Test & Measurement
- Importance of Test & Measurement In Sports
- Calculation of BMI & Waist - Hip Ratio
- Somato Types (Endomorphy, Mesomorphy & Ectomorphy)
- Procedures of Anthropometric Measurement - Height, Weight, Arm & Leg Length And Skin Fold

Unit VIII Fundamentals of Anatomy & Physiology

- Define Anatomy, Physiology & Its Importance
- Function of Skeleton System, Classification of Bones & Types of Joints
- Properties of Muscles
- Function & Structure of Muscles
- Function & Structure of Respiratory System, Mechanism of Respiration
- Structure of Heart & Introduction to Circulatory System
- Oxygen debt, second-wind

Unit IX Biomechanics & Sports

- Meaning & Importance of Biomechanics in Phy. Edu. & Sports
- Newton's Law of Motion and its application in sports
- Levers & Its Types and its application in sports
- Equilibrium - Dynamic & Static and Centre of Gravity and its application in sports
- Force - Centrifugal & Centripetal and its application in sports

Unit X Psychology & Sports

- Definition & Importance of Psychology in Phy. Edu. & Sports
- Define & Differentiate Between Growth & Development
- Developmental Characteristics at Different Stage of Development
- Adolescent Problems & Their Management
- Define Learning, Laws of Learning & Transfer of Learning
- Plateau & causes of plateau
- Emotion: Concept & controlling of emotion

Unit XI Training In Sports

- Meaning & Concept of Sports Training
- Principles of Sports Training
- Warming up & limbering down
- Load, Adaptation & Recovery
- Skill, Technique & Style
- Symptoms of Over-load & How to Overcome it

Practical

Max. Marks 30

- | | |
|--|------------|
| 01. Physical Fitness | - 05 Marks |
| 02. Athletics - Any two events - Sprints & Jumps* | - 05 Marks |
| 03. Health & Fitness Activities - Medicine Ball/Thera Tube/Pilates/Rope Skipping (Any one) | - 05 Marks |
| 04. Skill of any one Individual Game of choice from the given list*** | - 05 Marks |
| 05. Viva | - 05 Marks |
| 06. Record File** | - 05 Marks |

*The events being opted must be other than from those administered under Physical Fitness Test.

**1. Write benefits of Medicine Ball, Thera Tube & Pilates.

2. Measure BMI of ten members from family or neighbourhood & show graphical representation of the data.

3. Draw a neat diagram of Standard Track with all its specifications. Mention all the Track & Field Events.

Mention the latest records at Indian, World & Olympic Level.

*** Badminton, Judo, Swimming, Table Tennis, Taekwondo & Tennis

PHYSICAL EDUCATION (Code No. 048) CLASS XII (2016-17)

THEORY

Max. Marks 70
No. of Periods 180

Unit I Planning in Sports

- Meaning & Objectives of Planning
- Various Committees & Its Responsibilities
- Tournament - Knock-Out, League or Round Robin & Combination
- Procedure to Draw Fixtures - Knock-Out (Bye & Seeding) & League (Staircase & Cyclic)
- Intramural & Extramural - Meaning, Objectives & Its Significance
- Specific Sports Programme (Sports Day, Health Run, Run For Fun, Run For Specific Cause & Run For Unity)

Unit II Adventure Sports & Leadership Training

- Meaning & objectives of Adventure Sports
- Types of activities - Camping, Rock Climbing, Tracking, River Rafting & Mountaineering

- Material requirement & safety measures
- Identification & use of Natural Resources
- Conservation of surroundings
- Creating Leaders Through Physical Education

Unit III Sports & Nutrition

- Balanced Diet & Nutrition: Macro & Micro Nutrients
- Nutritive & Non-Nutritive Components of Diet
- Eating Disorders - Anorexia Nervosa & Bulimia
- Effects of Diet On Performance
- Eating For Weight Control - A Healthy Weight, The Pitfalls Of Dieting, Food Intolerance & Food Myths
- Sports nutrition (fluid & meal intake, pre, during & post competition)

Unit IV Postures

- Concept of Correct Postures - Standing and Sitting
- Advantages of Correct Posture
- Causes of bad posture
- Common Postural Deformities - Knock Knee; Flat Foot; Round Shoulders; Lordosis, Kyphosis, Bow Legs and Scolioses
- Physical Activities as Corrective Measures

Unit V Children & Sports

- Motor development in children
- Factors affecting motor development
- Physical & Physiological benefits of exercise on children
- Advantages & disadvantages of weight training & food supplement for children
- Activities & quality of life.

Unit VI Women & Sports

- Sports participation of women in India
- Special consideration (Menarch, Menstrual Dysfunction, Pregnancy, Menopause)
- Female Athletes Triad (Anemia, Osteoporosis & Amenoria)
- Psychological aspects of women athlete
- Sociological aspects of sports participation
- Ideology

Unit VII Test & Measurement in Sports

- Measurement of Muscular Strength - Kraus Weber Test
- Motor Fitness Test - AAPHER

- Measurement of Cardio Vascular Fitness - Harvard Step Test/Rockport Test
- Measurement of Flexibility - Sit & Reach Test
- Rikli & Jones - Senior Citizen Fitness Test
 1. Chair Stand Test for lower body strength
 2. Arm Curl Test for upper body strength
 3. Chair Sit & Reach Test for lower body flexibility
 4. Back Scratch Test for upper body flexibility
 5. Eight Foot Up & Go Test for agility
 6. Six Minute Walk Test for Aerobic Endurance

Unit VIII Physiology & Sports

- Gender differences in physical & physiological parameters.
- Physiological factor determining component of Physical Fitness
- Effect of exercise on Cardio Vascular System
- Effect of exercise on Respiratory System
- Effect of exercise on Muscular System
- Physiological changes due to ageing
- Role of physical activity maintaining functional fitness in aged population

Unit IX Sports Medicine

- Concept & definition
- Aims & scope of sports medicine
- Impact of surfaces & environment on athletes
- Sports injuries: Classification, Causes & Prevention
- Management of Injuries:
 - Soft Tissue Injuries:**
(Abrasion, Contusion, Laceration, Incision, Sprain & Strain)
 - Bone & Joint Injuries:**
(Dislocation, Fractures: Stress Fracture, Green Stick, Communated, Transverse Oblique & Impacted)

Unit X Biomechanics & Sports

- Projectile & factors affecting Projectile Trajectory
- Angular & Linear Movements
- Introduction to Work, Power & Energy
- Friction
- Mechanical Analysis of Walking & Running

Unit XI Psychology & Sports

- Understanding stress, anxiety & its management
- Coping Strategies

- Personality, its dimensions & types; Role of sports in personality development
- Motivation, its type & technique
- Self-esteem & Body Image
- Psychological benefits of exercise

Unit XII Training in Sports

- Strength - Definition, types & methods of improving Strength - Isometric, Isotonic & Isokinetic
- Endurance - Definition, types & methods to develop Endurance - Continuous Training, Interval Training & Fartlek Training
- Speed - Definition, types & methods to develop Speed - Acceleration Run & Pace Run
- Flexibility - Definition, types & methods to improve flexibility
- Coordinative Abilities - Definition & types

Practical

Max. Marks 30

- | | |
|---|------------|
| 01. Physical Fitness - AAHPER | - 05 Marks |
| 02. Athletics - Middle & Long Distance Runs & Throws* | - 05 Marks |
| 03. Health & Fitness Activities - Asanas/Swiss Ball/Plyometric/Aerobics (Any one) | - 05 Marks |
| 04. Skill of any one Team Game of choice from the given list*** | - 05 Marks |
| 05. Viva | - 05 Marks |
| 06. Record File** | - 05 Marks |

*The events being opted must be other than from those administered under Physical Fitness Test.

- **1. Write benefits of Asanas, Swiss Ball & Plyometric
2. Measure Resting Heart Rate & Respiratory Rate of ten members from family or neighbourhood for three weeks & show graphical representation of the data.
 3. Draw a neat diagram of the Field/Court of any one Game of choice. Write its history, Rules & Regulations, Terminologies & Important Tournaments.

*** Athletics, Basketball, Football, Handball, Hockey, Kho Kho & Volleyball