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.

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

Unit I  Changing Trends & Career in Physical Education

- Define Phy. Edu., Its Aims & Objectives
- Development of Phy. Edu. - Post Independence
• 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, Mediation & 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 Disfunction, Pregnancy, Menopause)
• Female Athletes Triad (Anemia, Oestoperosis & 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 Xll 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

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<thead>
<tr>
<th>No.</th>
<th>Activity</th>
<th>Marks</th>
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<tbody>
<tr>
<td>01</td>
<td>Physical Fitness - AAHPER</td>
<td>05</td>
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<tr>
<td>02</td>
<td>Athletics - Middle &amp; Long Distance Runs &amp; Throws*</td>
<td>05</td>
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<tr>
<td>03</td>
<td>Health &amp; Fitness Activities - Asanas/Swiss Ball/Plyometric/Aerobics (Any one)</td>
<td>05</td>
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<td>04</td>
<td>Skill of any one Team Game of choice from the given list***</td>
<td>05</td>
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<td>06</td>
<td>Record File**</td>
<td>05</td>
</tr>
</tbody>
</table>

*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