28. PHYSICAL EDUCATION
(Code No. 048)
CLASS-XI (2017-18)

Theory Max. Marks 70

Unit-I: Changing Trends & Career In Physical Education
- Meaning & definition of Physical Education
- Aims & Objectives of Physical Education
- Changing trends in Physical Education
- Various Physical Education Courses available in India
- Career Options in Physical Education
- Soft skills required for different careers

Unit-II: Olympic Movement
- Ancient & Modern Olympics (Summer & Winter)
- 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

Unit-III: Physical Fitness, Wellness & Lifestyle
- Meaning & Importance Of Physical Fitness, Wellness & Lifestyle
- Components of physical fitness
- Components of Health related fitness
- Components of wellness
- Preventing Health Threats Through Lifestyle Change
- Concept of Positive Lifestyle

Unit-IV: Physical Education & Sports for Differently Abled
- Aims & objectives of Adaptive Physical Education
- Organization promoting Adaptive Sports (Special Olympics Bharat; Paralympics; Deaflympics)
- Concept and need of Integrated Physical Education
- Concept of Inclusion, its need and Implementation
- Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & special Educator)

Unit-V: Yoga
- Meaning & Importance of Yoga
- Elements of Yoga
• Introduction - Asanas, Pranayam, Meditation & Yogic Kriyas
• Yoga for concentration & related Asanas (Sukhasana; Tadasana; Padmasana & Shashankasana)
• Relaxation Techniques for improving concentration - Yog-nidra

Unit-VI: Physical Activity & Leadership Training
• Introduction to physical activity & leadership
• Qualities & role of a Leader
• Behaviour change stages for physical activity (Pre-contemplation; Contemplation; Planning; Active; Maintenance)
• Creating leaders through Physical Education
• Meaning, objectives & types of Adventure Sports (Rock Climbing, Tracking, River Rafting, Mountaineering, Surfing and Para Gliding)
• Safety measures during physical activity and adventure sports

Unit-VII: Test, Measurement & Evaluation
• Define Test, Measurement & Evaluation
• Importance Of Test, Measurement & Evaluation In Sports
• Calculation Of BMI & Waist - Hip Ratio
• Somato Types (Endomorphy, Mesomorphy & Ectomorphy)
• Procedures Of Anthropomtric Measurement - Height, Weight, Arm & Leg Length

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: Kinesiology, Biomechanics & Sports
• Meaning & Importance of Kinesiology & Biomechanics In Phy. Edu. & 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
• Introduction to Buoyancy Force

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 (Law of Readiness; Law of Effect & Law of Exercise) & Transfer Of Learning
- Plateau & causes of plateau
- Emotion: Concept, Type & Controlling of emotion

Unit-XI : Training In Sports
- Meaning & Concept Of Sports Training
- Principles Of Sports Training
- Warming up & limbering down
- Load, Symptoms of Over-load, Adaptation & Recovery
- Skill, Technique & Style
- Role of Free-play in the development of Motor Component

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

Practical

Max. Marks 30

01. Physical Fitness (AAHPER) - 10 Marks
02. Skill of any one Individual Game of choice from the given list** - 10 Marks
03. Viva - 05 Marks
04. Record File*** - 05 Marks

**Archery, Badminton, Bocce, Gymnastics, Judo, Swimming, Table Tennis, Taekwondo & Tennis

***Record File shall include:
Practical-1: Labelled diagram of 400 M Track & Field with computations.
Practical-2: Computation of BMI from family or neighbourhood & graphical representation of the data.
Practical-3: Labelled diagram of field & equipment of any one game of your choice out of the above list.
Practical-4: Explanation & list of current National Awardees (Dronacharya Award, Arjuna Award & Rajiv Gandhi Khel Ratna Award)
Practical-5: Pictorial presentation of any five Asanas for improving concentration.
CLASS-XII (2017-18)

Unit-I : Planning in Sports
- Meaning & Objectives Of Planning
- Various Committees & its Responsibilities (pre; during & post)
- 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 : Sports & Nutrition
- Balanced Diet & Nutrition: Macro & Micro Nutrients
- Nutritive & Non-Nutritive Components Of Diet
- Eating For Weight Control - A Healthy Weight, The Pitfalls Of Dieting, Food Intolerance & Food Myths
- Sports nutrition & its effect on performance (fluid & meal intake, pre, during & post competition)
- Food supplement for children

Unit-III : Yoga & Lifestyle
- Asanas as preventive measures
- Obesity: Procedure, Benefits & contraindications for Vajrasana, Hastasana, Trikonasana, Ardh Matsyendrasana
- Diabetes: Procedure, Benefits & contraindications for Bhujangasana, Paschimottasana, Pavan Muktasana, Ardh Matsyendrasana
- Asthema: Procedure, Benefits & contraindications for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottasana, Matsyasana
- Hypertension: Tadasana, Vajrasana, Pavan Muktasana, Ardha Chakrasana, Bhujangasana, Sharasana
- Back Pain: Tadasana, Ardh Matsyendrasana, Vakrasana, Shalabhasana, Bhujangasana

Unit-IV : Physical Education & Sports for Differently-Abled
- Concept of Disability & Disorder
- Types of Disability, its causes & nature (cognitive disability, intellectual disability, physical disability)
- Types of Disorder, its cause & nature (ADHD, SPD, ASD, ODD, OCD)
- Disability Etiquettes
- Advantage of Physical Activities for children with special needs
- Strategies to make Physical Activities assessable for children with special need.
Unit-V : Children & Sports
- Motor development & factors affecting it
- Exercise Guidelines at different stages of growth & Development
- Advantages & disadvantages of weight training
- Concept & advantages of Correct Posture
- Causes of Bad Posture
- Common Postural Deformities - Knock Knee; Flat Foot; Round Shoulders; Lordosis, Kyphosis, Bow Legs and Scolioses
- Corrective Measures for Postural Deformities

Unit-VI : Women & Sports
- Sports participation of women in India
- Special consideration (Menarch & Menstural Disfunction)
- Female Athletes Triad (Oestoperosis, Amenoria, Eating Disorders)
- Psychological aspects of women athlete
- Sociological aspects of sports participation

Unit-VII : Test & Measurement in Sports
- Computation of Fat Percentage - Slaughter - Lohman Children Skinfold Formula:
  - Triceps & Calf Skinfold (Male 6 to 17 yrs - % body fat = (0.735 X sum of skinfold) + 1.0
  - Female 6 to 17 yrs - % body fat = (0.610 X sum of skinfold) + 5.0
- Measurement of Muscular Strength - Kraus Weber Test
- Motor Fitness Test - AAPHER
- General Motor Fitness - Barrow three item general motor ability (Standing Broad Jump, Zig Zag Run, Medicine Ball Put - For Boys: 03 Kg & For Girls: 01 Kg)
- Measurement of Cardio Vascular Fitness - Harvard Step Test/Rockport Test -
- Computation of Fitness Index: Duration of the Exercise in Seconds x 100
  - 5.5 x Pulse count of 1-1.5 Min after Exercise
- 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, Aims & Scope of Sports Medicine
- Sports injuries: Classification, Causes & Prevention
- First Aid - Aims & Objectives
- Management of Injuries:
  - Soft Tissue Injuries:
    - Abrasion, Contusion, Laceration, Incision, Sprain & Strain
  - Bone & Joint Injuries:
    - Dislocation, Fractures: Stress Fracture, Green Stick, Commutated, Transverse Oblique & Impacted

Unit-X: Kinesiology, Biomechanics & Sports
- Projectile & factors affecting Projectile Trajectory
- Newton’s Law of Motion & its application in sports
- Aerodynamics Principles
- Friction & Sports
- Introduction to Axes & Planes
- Types of movements (Flexion, Extension, Adbuction & Adduction)
- Major Muscles involved in running, jumping & throwing

Unit-XI: Psychology & Sports
- Understanding Stress & Coping Strategies (Problem Focussed & Emotional Focussed)
- Personality; its definition & types - Trait & Type (Sheldon & Jung Classification) & Big Five Theory
- Motivation, its type & techniques
- Self-esteem & Body Image
- Psychological benefits of exercise
- Meaning, Concept & Types of Aggressions in Sports

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
- Circuit Training & High Altitude Training; Introduction & its impact
Practical

Max. Marks 30

01. Physical Fitness - AAHPER - 10 Marks
02. Skills of any one Team Game of choice from the given list* - 10 Marks
03. Viva - 05 Marks
04. Record File** - 05 Marks

*Athletics, Basketball, Football, Handball, Hockey, Kho Kho, Rifle Shooting, Unified Basketball (Differently-Abled Children) & Volleyball

**Record File shall include:
Practical-1: Modified AAHPER administration for all items.
Practical-2: Conduct Barrow 3 Item Test on 10 students.
Practical-3: Procedure for Asanas, Benefits & Contraindication for any two Asanas each lifestyle disease.
Practical-4: Procedure for administering Senior Citizen Fitness Test for 5 elderly family members.
Practical-5: Any one game of your choice out of the list above. Labelled diagram of field & equipment Rules, Terminologies & Skills.

Note:
1. It is suggested that Unit No. III & VII may be taught by following the Principle of Learning by Doing.
2. Content is designed to complete the syllabus between 120-140 period.