

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 Anthropometric 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

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|--|------------|
| 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)

Theory

Max. Marks 70

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 & Menstrual Dysfunction)
- 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 = $(0.735 \times \text{sum of skinfold}) + 1.0$
(Female 6 to 17 yrs - % body fat = $(0.610 \times \text{sum of skinfold}) + 5.0$
- 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: $\text{Duration of the Exercise in Seconds} \times 100$
 $5.5 \times \text{Pulse count of 1-1.5 Min after Exercise}$
- 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, Communated, 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.