

# Syllabus-XII (2017-2018)

## THEORY

Max. Marks 70

### Unit-I : Planning in Sports

- Meaning and Objectives of Planning
- Various Committees and its Responsibilities (pre; during and post)
- Tournament – Knock-Out, League Or Round Robin and Combination
- Procedure to Draw Fixtures – Knock-Out (Bye and Seeding) and League (Staircase and Cyclic)
- Intramural and Extramural – Meaning, Objectives and its Significance
- Specific Sports Programme (Sports Day, Health Run, Run for Fun, Run for Specific Cause and Run for Unity)

### Unit-II : Sports and Nutrition

- Balanced Diet and Nutrition: Macro and Micro Nutrients
- Nutritive and Non-Nutritive Components of Diet
- Eating for Weight Control – A Healthy Weight, The Pitfalls of Dieting, Food Intolerance and Food Myths
- Sports Nutrition and its Effect on Performance (Fluid and Meal Intake, Pre, During and Post Competition)
- Food Supplement for Children

### Unit-III : Yoga and Lifestyle

- Asanas as Preventive Measures
- Obesity: Procedure, Benefits and Contraindications for Vajrasana, Pada Hastasana, Trikonasana, Ardh Matsyendrasana
- Diabetes: Procedure, Benefits and Contraindications for Bhujangasana, Paschimottanasana, Pawanuktasana, Ardh Matsyendrasana
- Asthma: Procedure, Benefits and Contraindications for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottanasana, Matsyasana
- Hypertension: Tadasana, Vajrasana, Pawanuktasana, Ardh Chakrasana, Bhujangasana, Shavasana
- Back Pain: Tadasana, Ardh Matsyendrasana, Vakrasana, Shalabhasana, Bhujangasana

### Unit-IV : Physical Education and Sports for Differently-Abled

- Concept of Disability and Disorder
- Types of Disability, its Causes and Nature (Cognitive Disability, Intellectual Disability, Physical Disability)
- Types of Disorder, its Cause and Nature (ADHD, SPD, ASD, ODD, OCD)
- Disability Etiquettes
- Advantage of Physical Activities for Children with Special Needs
- Strategies to Make Physical Activities accessible for Children with Special Need.

### Unit-V : Children and Sports

- Motor Development and Factors Affecting it
- Exercise Guidelines at Different Stages of Growth and Development
- Advantages and Disadvantages of Weight Training
- Concept and Advantages of Correct Posture
- Causes of Bad Posture

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- Common Postural Deformities - Knock Knee; Flat Foot; Round Shoulders; Lordosis, Kyphosis, Bow Legs and Scolioses
- Corrective Measures for Postural Deformities

#### Unit-VI : Women and Sports

- Sports Participation of Women in India
- Special Consideration (Menarch and Menstrual Dysfunction)
- Female Athletes Triad (Osteoporosis, Amenorrhoea, Eating Disorders)
- Psychological Aspects of Women Athlete
- Sociological Aspects of Sports Participation

#### Unit-VII : Test and Measurement in Sports

- Computation of Fat Percentage -  
Slaughter - Lohman Children Skinfold Formula:  
Triceps and 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 - AAHPER
- General Motor Fitness - Barrow three-ten general motor ability (Standing Broad Jump, Zig-Zag Run, Medicine Ball Put - For Boys: 03 Kg and For Girls: 01 Kg)
- Measurement of Cardio Vascular Fitness - Harvard Step Test/Rockport Test
- Computation of Fitness Index: Duration of the Exercise in Seconds  $\times 100$   
5.5  $\times$  Pulse count of 1-1.5 Min after Exercise
- Rikli and Jones-Senior Citizen Fitness Test
- 1. Chair Stand Test for Lower Body Strength
- 2. Arm Curl Test for Upper Body Strength
- 3. Chair Sit and Reach Test for Lower Body Flexibility
- 4. Back Scratch Test for Upper Body Flexibility
- 5. Eight Foot Up and Go Test for Agility
- 6. Six Minute Walk Test for Aerobic Endurance

#### Unit-VIII : Physiology and Sports

- Gender Differences in Physical and 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 and Scope of Sports Medicine
- Sports Injuries: Classification, Causes and Prevention
- First Aid - Aims and Objectives
- Management of Injuries:
- Soft Tissue Injuries: (Abrasion, Contusion, Laceration, Incision, Sprain and Strain)
- Bone and Joint Injuries: (Dislocation, Fractures: Stress Fracture, Green Stick, Comminuted, Transverse Oblique and Impacted)

#### Unit-X : Kinesiology, Biomechanics and Sports

- Projectile and Factors Affecting Projectile Trajectory
- Newton's Laws of Motion and their Application in Sports
- Aerodynamics Principles

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- Friction and Sports
- Introduction to Axes and Planes
- Types of Movements (Flexion, Extension, Abduction and Adduction)
- Major Muscles Involved in Running, Jumping and Throwing

#### Unit-XI : Psychology and Sports

- Understanding Stress and Coping Strategies (Problem Focused and Emotional Focused)
- Personality: its Definition and Types - Trait and Type (Sheldon and Jung's Classification) and Big Five Theory
- Motivation, its Type and Techniques
- Self-esteem and Body Image
- Psychological Benefits of Exercise
- Meaning, Concept and Types of Aggressions in Sports

#### Unit-XII : Training in Sports

- Strength - Definition, Types and Methods of Improving Strength - Isometric, Isotonic and Isokinetic
- Endurance - Definition, Types and Methods to Develop Endurance - Continuous Training, Interval Training and Fartlek Training
- Speed - Definition, Types and Methods to Develop Speed - Acceleration Run and Pace Run
- Flexibility - Definition, Types and Methods to Improve Flexibility
- Coordinative Abilities - Definition and Types
- Circuit Training and High Altitude Training: Introduction and its Impact

#### PRACTICAL

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|--|---------------|
| 01. Physical Fitness - AAHPER                                  | Max. Marks 30 |
| 02. Skills of any one Team Game of choice from the given list* | -10 Marks     |
| 03. Viva   | - 10 Marks    |
| 04. Record File**  | - 05 Marks    |
- \* Athletics, Basketball, Football, Handball, Hockey, Kho Kho, Rifle Shooting, Unified Basketball (Differently-abled Children) and 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 and Contra-indication 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 and equipment Rules, Terminologies and Skills).

#### Note:

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

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