

Department of Physical Education & Sports Sciences (Faculty of Inter-disciplinary & Applied Sciences), University of Delhi, C/O IGIPSS, B-Block, Vikaspuri, New Delhi-110018

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SYLLABUS FOR WRITTEN TEST TO B.Sc. (PE,HE&S) COURSE 2020-21

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 CWSN (Children With Special Needs - Divyang)

- 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 Disfunction)
- Female Athletes Triad (Oestoperosis, Amenoria, Eating Disorders)
- Psychological aspects of women athlete
- Sociological aspects of sports participate

Unit VII Test & Measurement in Sports

- Computation of Fat Percentage -
 - o Slaughter – Lohman Children Skinfold Formula:
 - o Triceps & Calf Skinfold (Male 6 to 17 yrs - % body fat = $(0.735 \times \text{sum of skinfold}) + 1.0$)
 - o (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: $\text{Duration of the Exercise in Seconds} \times 100 \div 5.5 \times \text{Pulse count of 1-1.5 Min after Exercise}$
- 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

- Introduction to Axes & Planes
- Types of movements (Flexion, Extension, Abduction & Adduction)
- Major Muscles involved in running, jumping & throwing
- Newton's Law of Motion & its application in sports
- Projectile & factors affecting Projectile Trajectory
- Friction & Sports

Unit XI Psychology & Sports

- Understanding Stress & Coping Strategies (Problem Focussed & Emotional Focussed)
- Personality; its definition & types – Trait & Types (Sheldon & Jung Classification) & Big Five Theory
- Motivation, its type & techniques
- Exercise Adherence; Reasons to Exercise, Benefits of Exercise
- Strategies for Enhancing Adherence to 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 - Introduction & its importance

Unit XIII General Knowledge (National & International)

General knowledge on Sports Events, Sports persons, Awards & Honours, Tournament & Trophies, Sports Personalities, Sports Administrators, Sports Federations (National & International), Sports Policies, Sports Abbreviations, Rules of games & Sports, Sports Equipments, Sports Terminology, Sports Infrastructure & stadia measurement of field & Court of various sports/ games sports, technology.

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HoD,

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