

GROUP-17

Junior Coach/ Director Phy. Edu. (Level- Graduate+ Dip in Sports from NIS)

1) General awareness, Reasoning, Mathematics, Science, History including Haryana related history, current affairs, literature, Geography, Civics, Environment, Culture etc.- **(Weightage 20%)**

2) Computer terminology, Fundamentals, word software, excel software, Power point, internet, web browsing, Communication, emails, downloading and uploading data on websites etc. -

(Weightage 10%)

3) Subject related syllabus-

(Weightage 70%)

Foundation of Physical Education

Meaning & definition of physical education, aim and objective of physical education. Scope of physical education, need and importance of physical education in modern society. Relationship of physical education with general education. Leisure and physical education. Place of physical in the present system of education.

National programme of physical education & sports. National institution of physical education & sports - NSNIS Patiala, sports authority of India (SAI), national sports talent contest scheme, army boys sports company scheme, special area scheme, SAI training centre scheme, national coaching scheme, rural sports and national.

History of physical education in India, division of ancient period, British period till 1947. Indian Olympic Association, history, constitution and role of IOA. Organization and State Associations, National Games, Asian Games, SAF Games, Common Wealth Games.

Olympic movement and its impact in physical education and sports. Games and sports as man's cultural heritage, role of games and sports in national and international integration. Sports policy of India and Haryana, Sports awards — Bhima, Arjun award, Rajiv Gandhi Khel Rattan award, Maulana Abul Kalam Azad Trophy, Dhyanchand life time achievement award and Dronacharya Award.

Theory of Games

History of games, Role of Haryana's people for the development of games, Duties of officials (Pre game, during the game & post-game), Technical officials & their duties, Protective equipment used in games, Offensive & defensive strategy employed in the various games, Conduct of tournament & types of fixtures used in various Games/Sports, Duties of Technical Officials, Awards, Major tournaments, Famous Sports Personalities, qualities of good coach, qualities of good officials, Principles of officiating, Principles of coaching, qualifications of a coach/official.

KINESIOLOGY

Meaning of kinesiology brief history of Kinesiology. Importance of kinesiology for games and sports; structural & functional classification of muscles. Role of muscles in Physical activity, anatomical standing position, planes and axes of movement. Terminology of fundamental movement, Newtons laws of motion and their implication in Physical Education and Sports. Levers, Equilibrium, Centre of gravity, force centripetal and centrifugal force; Application of biomechanical principles to sports, Motor movement, rhythm, movement coupling, movement precision and movement amplitude, Upper extremity, shoulder girdle, shoulder joints & elbow joint. Deltoid, Latissimus Dorsi, Pectoralis major, pectoralis minor, Trapezius, Biceps Brachii and Triceps - Lower extremity: Hip joint, Knee joint & Ankle joints, Gluteus Maximums, Gluteus Medius, Gluteus minimum, Hamstring (Group), quadriceps (Groups), Gastrocnemius. - The spinal column, Meaning, importance, aims and objectives of biomechanics in Physical Education and sports; kinetics, speed, velocity, acceleration, projectile, linear, mass, weight, pressure, work energy, momentum, friction, inertia, Meaning of posture type of posture, importance of posture, causes of poor posture, preventive and remedial measures of a poor posture, common postural deformities kyphosis, lordosis, flat foot, knock knees, bow legs, lateral curvatures.

Anatomy & Fitness

Meaning of anatomy, cell, structure, properties of living matter. The role of anatomy in physical education & sports, anatomy of bones cartilage's, Names and location and functions of bones, kinds of

bones, joints and their types, tissues, organs and system of body, Anatomy of muscular system, structure of muscles and their kinds. Properties of muscles. Muscle work and, fatigue, anatomy of respiratory organs, tissue and pulmonary respiration, anatomy of heart, function of heart, heartbeat, stroke volume, cardiac output, Anatomy of digestive organs (alimentary canal), structure and functions of excretory system, meaning of endocrine glands, Definition of physical fitness components of physical fitness, benefits of physical - activity, development of physical fitness. Controlling and management of your weight, determining the right weight to you, factors influencing physical fitness. Planning a fitness programme, identify your fitness goals. Design your programme, causes and prevention of fitness related injuries, selecting a nutrition plan for fitness.

ENVIRONMENT STUDIES

Solar System: - Sun, major planets and their satellites. Water cycle, wind, ice, ecosystem, components of ecosystem. Ecological succession, whether modification, noise pollution, Epidemiology – meaning and its types, food born and water borne diseases, food related health problems other than biological agents. Air born infection caused by pollution other than micro-organism, insecticide, Uses of water, water sanitation, sources of water, water supply, water quality, water purification, drinking water standard, contamination of drinking water, water pollutants, water pollution. Types of water pollution and its causes. Control of water pollution and water management, Air pollution, source of air pollution, major types of air pollutants and consequences of air pollution. Effects of air pollution on human health. Effects of air pollution on weather, air pollution control, control of gaseous pollution, control of air pollution by legislation and trees, Environmental management objectives of environmental management, principle of Environmental Management, strategy of Environmental management. Natural resources management, solid waste management.

PHYSIOLOGY OF EXERCISE

Definition of exercise, types of exercise, benefit of exercise. Meaning of Physiology and Exercise Physiology, Importance & functions of Exercise Physiology in the field of Physical Education and Sports. Long term and short-term effects of exercise on muscular system, Physiology of respiratory system and types of respiration, mechanism of inhibition and exhibition, effects of exercise on respiratory system, lungs and exercise. Endocrine system, functioning of various endocrine glands pituitary glands, Thyroid gland, adrenal gland, effect of exercise on the functioning of endocrine glands, nervous system, Cardio-vascular system: - Adaptation of heart, Effect of exercise on heart, changes in heart, Blood, Blood pressure, effect of exercise on blood & blood pressure. Physiology of excretory system, effect of exercise on excretory system. Basic physiology of circulatory system effects of exercise on circulatory system, Physiology of Digestive system, stages of digestive process in mouth, stomach, small intestine, Large intestine, function of liver, effect of exercise on digestive system. Reflex action, reciprocal intervention. Effect of exercise on nervous system.

HEALTH EDUCATION, FIRST AID AND SAFELY MEASURES

Meaning of Health, Importance of Health, factors influencing Health Status, Characteristics of healthy individual. Health yesterday and today. New directions for health – health promotion, Physiological health, mental health, emotional health social health, spiritual health & happiness. A key to well-being, School health programme and health environment, nutrition, balance diet, caloric value of food for competitive sports. Eating for health, today's dieting guide lines medicated value of food, Methods of Education in Health. Health instructions audio-visual methods. Health organizations- world health organizations, Red Cross, government health agencies. Communicable diseases-modes of transmission, control and prevention of following disease- (i) cholera (ii) small-pox (iii) typhoid (iv) malaria (v) influenza, First Aid: Definition and importance of first aid in modern life, types of first aid, first aid box. Reasons of sports injuries, principle of first aid, functions & qualities of a good first aider, Basic steps in safety measures safety measures for the following (i) bites of animals, burns, control of bleeding, cuts and wounds. Safety for drowning artificial respiration. Safety measures environmental hazards. Heat stroke, heat syncope, wind chill and sunburn.

Physiotherapy

Meaning of Physiotherapy, Scope and utility of physiotherapy, Physiotherapy in sprain, strain, muscle pull, muscle soreness, Hydrotherapy, meaning, precaution in giving the hydrotherapy, Benefits of hydrotherapy, Massage: Meaning and importance in sports, Physical benefits of massage with its utility in sports, Electrotherapy: Meaning & Importance, Danger of using Electrotherapy, Benefits of

Electrotherapy, Meaning of Thermo-Therapy, Physiological effects of Thermo- therapy. Do's and don'ts do's in Thermo-Therapy, Cryo-Therapy importance of Cryo-Therapy methods employed in Cryo-Therapy, Exercise therapy meaning of therapeutic exercise, kinds and its utility in sports. Therapeutic exercise for person suffering from back pain and spondylosis. - Meaning of Rehabilitation, importance of Rehabilitation Principles of rehabilitation, Role of Physical Education Teacher in rehabilitation.

Sports Psychology

Meaning of Psychology and Sports Psychology, Scope of Sports Psychology, Psychological factors affecting Sports Performance. Learning, types of learning, Factors affecting learning curve, Meaning and definition of motivation. Types of motivation techniques of motivation, importance of motivation in Physical Education and Sports. Growth & Development, Various stages of growth and development, growth and development during childhood (Psychological, Physical & Motor Development) Psychological characteristics of an adolescent. Problem of an adolescent, Meaning and definition of personality, Dimensions of personality, Personality traits, factors affecting personality. Role of Physical activities in development of personality, Meaning of Individual Differences, Type of Individual Differences, Factors affecting Individual Differences, Meaning and Definition of emotion.

Foundation of Sports Training

Meaning, definitions, - Aims and objectives of sports training, - Principles of sports training - Importance of Sports Training, Training load, load adaptation, overload and recovery, factors of load. - Circuit training, interval training, (Fartlek training, plyometric training, Sprint training, Development of Motor components: Speed, Strength, endurance, flexibility, agility, Periodization: Meaning and definition of periodization, importance of periodisation single, double and triple, periodization, long term and short term plan, planning for competition main and build up competitions,

Sports Sociology

Meaning, Definition of Sports Sociology, Importance of Sports. - Physical Education and Sports as a Social Phenomenon, Social Institutions: Role of Social Institution in participation in games and sports, Socialization through sports, Sports as regulating institution of society. Sports & Religion how influence in each other, Women in Sports: Social myths related with women. - Attitude of Society towards sports man and Sports women - Future of women participation in sports, Meaning, Definition and characteristics of leadership, qualities of a leader, leadership training in Physical Education, Need and Importance of leadership in Physical Education.

Important Note: The Weightage as mentioned against the syllabus is tentative & may vary.