

Syllabus of Physical Education (COPH15)

Note:

- i. There will be one Question Paper which will have 100 questions.
- ii. All questions will be compulsory.
- iii. The Question Paper will have two Parts i.e. Part A and Part B
- iv. Part A will have 50 questions based on Research Methodology
- v. Part B will have 50 questions based on Subject-Specific Knowledge.

Unit -I:

- ❖ Physical education and adapted physical education, their objectives
Philosophies of education as applied to physical education.
- ❖ Development of Physical education in Greece, Rome, Sweden, Russia England,
Denmark, Germany, USA, Australia and China.
- ❖ Growth and development of physical education in India:
- ❖ Recreation- its principles, characteristics and importance. Modern trends in recreation.
Indoor and outdoor recreational programmes. Recreational programmes for various
categories of people.
- ❖ Wellness- its importance, benefits and challenges. Development and maintenance of
wellness.
- ❖ Teaching Aptitude – nature, objectives, characteristics of teaching, learner characteristics
and teaching methods.
- ❖ Social aspects of sports- sports as a socializing agency, social values, sports
leadership, sports as cultural heritage and social aspects of competition.
- ❖ Ancient & Modern Olympics games, Asian and Commonwealth games.
- ❖ Structure and functions of international and national bodies controlling various games and
sports.
- ❖ Prominent honors and awards in games and sports.

Unit -II:

- ❖ Exercise physiology its scope and importance in the field of physical education and sports.
- ❖ Cardio respiratory adaptations to long and short term physical activities.
- ❖ Muscle- its types, characteristics and functions. Microscopic structure of muscle fibre.
Sliding filament theory of muscular contraction. Types of muscle fibres and sports

- performance. Muscular adaptations to exercise.
- ❖ Neuro-muscular junction and transmission of nerve impulse, kinesthetic Senseorgans and neural control of motor skills.
- ❖ Bio-chemical aspects of exercise - Metabolism of food products. Aerobic and anaerobic systems during rest and exercise. Direct and indirect methods of measuring energy cost of exercise.
- ❖ Recovery process - Physiological aspects of fatigue. Restoration of energy stores. Recovery oxygen. Nutritional aspects of performance.
- ❖ Environmental influence on human physiology under exercise.
- ❖ Women in sports- trainability. Physiological gender differences and special problems of women athletes.
- ❖ Aging - Physiological consequences, life style management and healthful aging. Physiological responses of various therapeutic modalities and rehabilitation.
- ❖ Physiological aspects of various Ergogenic aids. Massage manipulations and their physiological responses.

Unit- III:

- ❖ Kinesiology and biomechanics. Modern trends in biomechanics. Planes and Axes of human body. Joints and their movements.
- ❖ Muscle attachments - Origin, insertion, action and leverage of the principal muscles used in sports.
- ❖ Motion: its laws and their application in sports. Projectile and principles of projections
- ❖ Linear and angular kinematics and kinetics. Friction, Spin, impact and elasticity.
- ❖ Air and water dynamics.
- ❖ Mechanical advantage and applications of Levers in sports. Posture and its deformities with their corrective exercises.
- ❖ Kinesiological, Muscular and mechanical analyses of fundamental movements: Mechanical analyses of major sports skills

Unit – IV:

- ❖ Sports psychology- its importance in the field of physical education and sports. Motivation in sports- types, theories and dynamics.
- ❖ Psychological factors affecting sports performance- Emotions, Anxiety aggression, stress, self-confidence, concentration, mental practice and goal setting.
- ❖ Personality- Theories of personality, measurement of personality.
- ❖ Group dynamics, Group cohesion and leadership in sports.
- ❖ Cognitive process- memory and thinking. Principles of Motor skill learning. Transfer of training and its types with its implication in sports.

- ❖ Long and short term psychological preparation for performance/ competition.
Psychological skill training for activation and relaxation
- ❖ Spectators and sports performance.

Unit -V:

- ❖ Development of teacher education for physical education in India. Comparative study of professional preparation in physical education of India with those of USA, Russia, Germany, Australia and UK.
- ❖ Professional and other courses of physical education in India. Role of Government agencies monitoring professional courses in physical education.
- ❖ Qualities, qualifications and responsibilities of physical education personnel at primary, secondary and higher education levels. Scope of physical education personnel in the promotion of health, fitness and wellness.
- ❖ Recent Government policies for promoting physical education and sports in India.
- ❖ Hierarchy of organizational set-up in physical education at schools, colleges and university level.
- ❖ Role of public & private sectors in the promotion of physical education and sports in the country.
- ❖ Curriculum development- Concepts and principles of curriculum planning. Subject matter for different levels of education - primary, secondary and higher education.
- ❖ Curriculum design and content- importance, selection and classification of subject matter with reference to age, sex and differently abled pupils. Integrated programme for boys and girls.
- ❖ Teaching aids - Time-table, Concepts, credit system for various subject courses- theory and practical, Impact of technology in physical education and sports,
- ❖ Curriculum evaluation: Concepts and purpose; procedure and appraisal.

Unit -VI:

- ❖ Health- its objectives and spectrum. Health education, its importance and principles. Role of genetics and environment in achieving health. Health-related physical fitness.
- ❖ Community health programme- Health appraisal & health instructions. International and national health promoting government & private agencies.
- ❖ School Health programme and personal hygiene.
- ❖ Communicable diseases: causes, symptoms, prevention through other means and Immunization.
- ❖ Psychosomatic disorders/ sedentary life style diseases: causes, symptoms and prevention.
- ❖ Obesity related health problems. Body weight control and its significance on health. Role

- of exercise, dieting and combination of exercise & dieting on weight control.
- ❖ First-aid- objectives and principles. First-aid for Shock, poisoning, burns, drowning, bleeding, electric shock and common sports injuries.
- ❖ Pollution- Air, water, sound and radiation. Effects of pollution on health, Preventive and safety measures from pollution.
- ❖ Nutrition- Balanced diet and its components. Nutritional Deficiencies. Understanding of malnutrition and nutritional supplements.
- ❖ Effects of smoking, alcohol, & drugs on health; prevention and rehabilitation.

Unit -VII:

- ❖ Sports training- its characteristics and principles. Training load, its features, principles and adaptation process. Means and methods of executing training load. Overload, its Causes, symptoms and remedial measures.
- ❖ Strength- its characteristics, types of strength, factors determining strength and strength development.
- ❖ Endurance- its characteristics, types of endurance, factors determining endurance and endurance development.
- ❖ Speed- its characteristics, types of Speed, factors determining Speed and speed development.
- ❖ Flexibility-its characteristics, types of flexibility, factors determining flexibility and flexibility development.
- ❖ Coordinative abilities- its characteristics, types of coordinative abilities, factors determining coordinative abilities and development of coordinative abilities.
- ❖ Technique and skill- its characteristics and importance. Different stages of technique development and technique training. Tactics and strategy.
- ❖ Planning- its importance and principles. Types of planning.
- ❖ Periodization- its importance, objectives and types of periodization. Concept of different periods - Preparatory, competition and transitional. Types of Competition:
- ❖ Talent identification- process and procedure.

Unit -VIII:

- ❖ Research in physical education- its importance and classification. Ethical issues in research.
- ❖ Methods of research- Descriptive, historical and experimental. Experimental research designs.
- ❖ Identification and formulation of research problem. Types of research hypotheses and their formulation. Hypotheses testing.
- ❖ Tools of research- Questionnaires, opinionnaires, interviews and observation.
- ❖ Sources and steps of literature search- library, research data bases, and internet- search engines, online journals. Note taking and critical reading.

- ❖ Sampling Techniques- Probability and non-probability. Data, its types and collecting measures.
- ❖ Normal probability curve and grading scales.
- ❖ Statistical processes, their importance and uses in research.
- ❖ Application of parametric and non-parametric statistical techniques in research.
- ❖ Computer applications- statistical packages for data analyses- SPSS, e-mail, search engines and Microsoft office.
- ❖ Preparation of research proposal, report, abstract, paper for publication and paper for presentation.

Unit - IX:

- ❖ Test, measurement and evaluation -their types and importance in physical education and sports. Principles and processes of evaluation in physical education.
- ❖ Criteria of selecting an appropriate test and administration of testing programme.
- ❖ Types of tests and construction of standard knowledge and skill tests.
- ❖ Tests for fitness- Physical fitness, motor fitness, motor ability and motor educability. Health related fitness tests.
- ❖ Test for fitness components- strength, endurance, speed, flexibility and coordinative abilities.
- ❖ Sports skill tests- Badminton, Basketball, Football, Hockey, Tennis, and Volleyball.
- ❖ Anthropometric Measurements- land marks and measurement of various body segments, height, sitting-height, weight, diameters, circumferences, skinfolds, body mass index, ponderal index.
- ❖ Somatotype and Posture evaluating techniques.
- ❖ Testing of physiological phenomena- Blood pressure, breathing frequency vital capacity, heart rate, pulse rate, body temperature and body composition.
- ❖ Tests for psychological variables- Anxiety, aggression, team cohesion, achievement motivation, mental-toughness, and self-efficacy.

Unit - X:

- ❖ Management- its principles and theories. Scope of management in physical education and sports. Guiding principles for organizing physical education & sports programmes in institutions.
- ❖ Personnel management- objectives and principles. Self-appraisal, communication skills and time management. Essential skills of administration.
- ❖ Financial management- objectives, purposes, principles and scope. Planning and preparation of budget. Mechanics of purchase and auditing.
- ❖ Supervision - objectives, principles and importance of supervision. Techniques of

supervision. Duties and responsibilities of a supervisor.

- ❖ Facility management- planning, procuring and maintenance of facilities- indoor and outdoor facilities. Planning and management of sports infrastructure. Management of records.
- ❖ Role of sports manager- interpersonal, informational and decision making. Managerial skills – technical, human and conceptual. Qualities and qualification of sports manager.
- ❖ Event management- its principles, planning, check list, rehearsal, itinerary, execution, reporting and follow-up procedures of an event.
- ❖ Public relation- principles of public relations in physical education and sports. Mass Media- communication and publicity, qualifications of Public relation officer.