PHYSICAL EDUCATION

PART - 1
RESEARCH METHODOLOGY (50%)

1) સંશોધન પરિયાય
   • સંશોધનનો અર્થ, મહત્વ, પ્રકૃતિ
   • શારીરિક શિક્ષણમાં સંશોધન કેન્દ્રો, સંશોધનનો
   • સંશોધનકીના લક્ષણો

2) સમસ્થા
   • સમસ્થા-શોધ અને અર્થ
   • ઉદ્યોગ અને સ્રોત
   • પસંદગી અને ઘોરણો
   • ક્ષેત્ર અને અર્થધરતા
   • સમસ્થાનના પ્રકાર
   • સંશોધન ઉપ રૂપેના
   • શારીરિક શિક્ષણ અને રમત ગમતમાં સમસ્થા કેન્દ્રો

3) ઉત્કૃષ્ટપના
   • ઉત્કૃષ્ટપનાનો અર્થ, મહત્વ, લક્ષણો, ક્ષેત્ર અને સ્રોત
   • ઉત્કૃષ્ટપનાના પ્રકાર

4) નમુનો
   • નમુનાનો અર્થધરતા લક્ષણ અને તે પ્રકાર
   • નમુના પસંદગીની પ્રકૃતિ અને નમુના લૂલ

5) સંશોધન ઉપકરણો
   • સંશોધન ઉપકરણ શ્રેષ્ઠ શું?
   • ઉપકરણોની વિજોથતા અને પ્રકાર
   • સંશોધન પહેલાં અને પ્રકારો
5) સંશોધનમાં આકર્ષણ
6) સંશોધન અહીંવાલ
7) આહેં
8) T-ટેસ્ટ, F-ટેસ્ટ, આન લેજર, Z-ટેસ્ટ
9) આકર્ષણસીય માહિતીનું અંદભાન અને સ્ક્રૂબલેટ
Part- 2
Core Subject (50 %)

NET SYLLABUS

Subject : Physical Education

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.

Structure and functions of international and national bodies controlling various games and sports. Prominent honours 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.


Neuro-muscular junction and transmission of nerve impulse, kinesthetic Sense organs and neural control of motor skills.


Environmental influence on human physiology under exercise.

Women in sports- trainability. Physiological gender differences and special problems of women athletes.

Aging - Physiological consequences, lifestyle 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:


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.


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.


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.

Effects of smoking, alcohol, & drugs on health; prevention and rehabilitation.

Unit -VII :


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, 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 phenomenons- 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.

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.