



**MAHARAJA BHUPINDER SINGH PUNJAB SPORTS
UNIVERSITY,(MBSPSU), PATIALA**

INTRODUCTION AND HISTORY OF PHYSICAL EDUCATION

Unit – 1: Introduction

1. Meaning and Definition of Physical Education.
2. Aim and Objectives of Physical Education.
3. Importance of Physical Education in Modern era.
4. Misconceptions about Physical Education.
5. Relationship of Physical Education with General Education and Health Education.

Unit- 2 – Historical Development of Physical Education

1. History of Physical Education in Ancient Greece.
2. History of Physical Education in Roman Empire.
3. A brief account of the history of gymnastic in:
 - 1) Sweden
 - 2) Denmark
 - 3) Germany

Unit- 3- Olympic, Commonwealth and Asian Games

1. IOC-Functions.
2. Ancient Olympic games-A comparison with modern Olympic games.
3. Asian Games with historical background.
4. Commonwealth Games.
5. Conduct of ceremonies-Opening and Closing ceremonies.

Unit-4- Sports Associations, Institutes and Awards in India

1. Indian Olympic Association-Objectives and function.
2. Lakshmi Bai National Institute of Physical Education-Functions and Courses.
3. Netaji Subash National Institute of sports, Patiala-Functions and Courses.
4. Sports Authority of India- Objectives and function.
5. Awards- Rajiv Gandhi Khel Ratna Award, Arjuna Award, Dronacharya Award, Mulana Abul Kalam Azad Trophy(MAKA).

References:-

- Bucher, C. A. (1983) *Foundation of Physical Education*. St. Louis: The C.V. Mosby Co.
- Deshpande, S. H. (2014). *Physical Education in Ancient India*. Amravati: Degree College of Physical Education.
- Lal, D.C (2006) *History of Physical Education and Sports, Sports Publication, New Delhi*.
- Mohan, V. M. (1969). *Principles of Physical Education*. Delhi: Metropolitan Book Dep.
- Nixon, E. E. & Cozen, F.W. (1969). *An introduction to Physical Education*. Philadelphia: W.B. Saunders Co.
- Obertuffer, (1970). *Delbert Physical Education*. New York: Harper & Brothers Publisher.
- Sharman, J. R. (1964). *Introduction to Physical Education*. New York: A.S. Barnes & Co.
- Singh A., et. al. (2017), *Modern text book of Physical Education, Health and Sports, Kalyani Publisher*.
- William, J. F. (1964). *The Principles of Physical Education*. Philadelphia: W.B. Saunders

Co.

- M.L. Kamlesh; *Foundation of Physical Education* (3rd revised ed.); New Delhi Sports Publications, 2013.
- M.L. Kamlesh & M.S.Sangral: *Principles and History of Physical Education*.(2nd revised ed.), New Delhi, Friends Publications;2011.
- The CV Mosby Company, Missouri. 3. Barrow M. Harold- 1973 " *Man & Movement: Principles of Physical Education*".
- Felson Janet -1967 "*Perspective & Principle of Physical Education*".
- Khan, Eraj Ahmed. *History of Physical Education*, Patna: Scientific Book Co.
- Leonard, Fred Eugene and Affleck George B. *Guide to the History of Physical Education*, Philadelphia Leo & Febiger, 1962.
- Majumdar D.C. *Encyclopedia of India Physical Culture Baroda Good Companions*, 1952.
- Rice Emmett, A. Hutchinson John L. and Lee Marbal A. *Brief History of Physical Education*. New York: The Ronald Press Co. 1960.
- Rajgopalan K. A. *Brief History of Physical Education In India*, Delhi Army Publisher 1962.
- Wakharkar, D. G., *Manual of Physical Education*, BOMBAY, Pearl Publishers Pvt. Ltd.

General Science

Unit – 1

1. Life: Living and non–living things, their difference, Cells–differences between plants and animals, Interdependence of plants and animals. Reproduction in plants and animals. Sexual, asexual Budding and Vegetative propagation, germination, its conditions, organic evolution and its proofs.
2. Air: Properties of air, uses of air, atmospheric pressure, composition of air.
3. Properties of Gases: Oxygen, Hydrogen, Carbon–dioxide occurrence, preparation, properties and uses.

Unit- 2

1. Water:-Natural water–sources, mineral water, drinking water, physical and chemical properties of water, purification of water, hard and soft water, causes of hardness and their removal, harms of hard water. Archimedes principle.
2. Matter:-Matter, Atom, Molecule, Element, Compound, Mixture, Acid, Base and Salt.

Unit- 3

1. Metals and Non–Metals: Definition of metal and non–metals. Distinction between them and their general physical properties.
2. Alloy: Definition, alloys of iron, copper and aluminum.
3. Sulphur: Three kinds of Sulphur, properties and uses.
4. Phosphorus: Three kinds of phosphorus, properties and uses.

Unit-4

1. Heat: Sources, transmission of heat – conduction, convection and radiation. Measurement of Heat: Specific heat, Thermal capacity and latent heat, Processes of melting, boiling and evaporation.
2. Light: Luminous, Non–Luminous, Transparent and translucent bodies. Reflection and its laws. Refraction of light.
3. Magnetism and Electricity: Magnet and their properties, Static electricity, charge current, Electrostatic field, leclenche cell, dry cell, Electric terms – Volt, Ampere, Resistance, Ohm, AC, DC.

References:

- David LaHart, Jill D. Wright (1993). *Human Biology and Health*. Englewood Cliffs, New Jersey: Prentice Hall.
- Denise Walker. (2007). *Metals and Non-Metals*, Evans Brothers.
- Jennifer Haigh, (2016). *Heat & Light*, good reads Author.
- Kotz, J.C., Treichel, P., & Weaver, G.C. (2005). *Chemistry & Chemical Reactivity*. Thomson Brooks.
- Mark Denny. (1993). *Air and Water The Biology and Physics of Life's Media*, Princeton University Press.
- William L.; Hurley, Cecile N. (2008). *Chemistry: Principles and Reactions* (6th ed.). Cengage Learning.
- Iyec, Mac. R.M. and Page Charles H. Society (London : McMillan & C., 1974).
- Ogburn, William F. and Nimkoff, Meyer F., *Hand Book of Sociology* (New Delhi : Eurasia Publishing House Ltd., 1972).
- Loy, Lohn W. Dr. and Kenyon, Gerald S. *Sports Culture and Society* (Philadelphia : The MacMillan Co. 1969).
- Brailsford Dennis *Sports and Society*, (London- Routledge and Kegan Paul 1969).

HEALTH EDUCATION

Unit-I INTRODUCTION

1. Definition of health and health education.
2. Meaning, Aim, objectives and Scope of health education.
3. Principles and Importance of health education.
4. First aid: Symptoms, causes, treatment of sprain, strain and fracture.

Unit-II COMMUNICABLE DISEASES

1. Communicable Diseases: Influenza, Small pox, Typhoid, Tuberculosis, Cholera, Rabies, Measles.
2. Overweight ,underweight, Malnutrition and its causes.
3. Meaning and Methods of prevention of communicable disease.
4. Meaning and Methods of prevention of Non communicable disease.

UNIT-III HYGIENE

1. Personal Hygiene care: Skin, Mouth, Nails, Clothes and Bathing.
2. Importance of rest, sleep and exercise Health - Dental, Vision, Hearing.
3. Causes and care of environment health in India.

UNIT-IV SCHOOL HEALTH SERVICE

1. Personal and environmental hygiene for school.
2. School health problems: Health appraisal, School environment, Nutritional services.
3. Mental health, school health and safety measures in the playfield, first aid and emergency care.
4. Common health problem: drug and narcotics, alcohol, smoking and food infection.

Reference:

- Aykroyd, W.R. (1962). *The nutritive value of Indian foods and the planning satisfactory diet*, New Delhi.
- Degort, L.J. (1969). *Nutrition and Physical*, W.B. saunders Co.
- Irwin, L. (1960). *The curriculum in Health Physical Education*, Iowa. UMC brown publisher,
- Park, J.E. & Park, K. (1985). *Text book of preventive and social medicine*. Bnasidar Bhanot publications, Jabalpur.
- Park, J.E. & Park, K. (1982). *Text book of community health for nurses*. Asrani publications, Jabalpur.
- Singh, A., Gill, J.S., Bains, J., & Brar, R. S. (2007). *Essentials of physical education*. Kaliyani publications, Ludhiana.
- Turner, S., & Smito. (1961). *School: Health Education*, C.V., mosby & smith Co.

ANATOMY AND PHYSIOLOGY

Unit – 1: INTRODUCTION AND STRUCTURE OF HUMAN BODY

1. Meaning and Concept of Anatomy and physiology.
2. Need and Importance of the knowledge of Anatomy in the Field of Physical Education.
3. Definitions of Cell, Tissue, Organ and System.
4. Microscopic structure and function of cell and tissue.

Unit- 2 – MUSCULO-SKELETAL SYSTEM

1. Different Parts of Human Skeleton.
2. Types of Bones.
3. Classification and function of joints, Names of the Movements around the Joints.
4. Structure and classification of Skeletal Muscles.

Unit- 3- CARDIO-RESPIRATORY AND DIGESTIVE SYSTEM

1. Structure of the Heart.
2. Systemic and Pulmonary Circulation. Blood Vessels- Arteries, Veins and Capillaries.
3. Introduction of respiratory system.
4. Structure, Organs and functions of Respiration.
5. Parts of Digestive Tract, Structure and Function in brief.

Unit-4- NERVOUS AND ENDOCRINE SYSTEM

1. Introduction and structure of Nervous System.
2. Sensory nerves, motor nerves and reflex arc.
3. Endocrine System: Names, Location and Functions of-
 - 1) Pituitary Gland
 - 2) Thyroid gland
 - 3) Adrenal gland
 - 4) Pancreas

References:

- Astrend, P.O. and Rodahl K, (2003). *Text Book of Work Physiology*, Tokye: McGraw- Hill Kogakusha Ltd(Human Kinetics Publishers; Fourth edition,1 February).
- Bourne, G. H. (1973). *The Structure and Function of Muscles*: London: Academic Press.
- Chaurasia B.D. (1979). *Human Anatomy Regional and Applied* (CBS Publisher and Distributors,).
- Mathew, D.K. and Fox E.L., (1976). *Physiological Basis of Physical Education and Athletics* (Philadelphia: W.B. Saunders Company).
- Morehouse, I.E. Miller, A.T. (1976). *Physiology of Exercise*. (St. Louis: The C.V. Mosby Company) 7th Edition.
- Perrot J.W. (1967). *Anatomy for Students and Physical Education* (London: Adward Arnold and Co.).
- Piyush J. (2009). *Basic Anatomy & physiology Exercise*, (Khel sahitya kendra).
- Rajalakshmi D, (2007). *Anatomy and Physiology in Physical Education* (Sports Education Technologies).
- Shinde B.S. (2010). *Basic Anatomy and Physiology*,(Sports publication).
- Waruida et. al. (1973). *Grey's Anatomy* (London: Longman Group Ltd.).
- Guybon, Arthur C. *Text book of Medical Physiology*. (Philadelphia: W.B. SaunderCompany,1976).

- James C. Clouch, *Fundamental Human Anatomy* (Lea & Febiger, Philadelphia,1971).
- Caprovich, P.V. and Sinning. Wayne E. *Physiology of Muscular Activity* (Philadelphia: W.B. Saunders, 1976), 7th Edition.
- St. John`s Ambulance, *First-Aid By Red-Cross Society of India*.

METHODS OF PHYSICAL EDUCATION

Unit – 1

1. Teaching Methods: Meaning, Principles and scope of teaching methods, factors influencing methods of teaching, formal and informal methods of teaching.
2. Classification of Pupils: Meaning, importance and Methods of Classification of Pupils.
3. Command Method: Meaning, Types and Technique of Command.

Unit- 2

1. Teaching Techniques in Physical Education: ByParts, Whole, Lecture, Demonstration, Command, Explanation, Imitation and Project Methods.
2. Preparation: Personal and Technical Preparation and steps of Preparation.
3. Class Management: Meaning and Principles of Class Management.
4. Formation : Meaning and Types of Formation.

Unit- 3

1. Lesson Plan: Importance, objectives and types of lesson plans.
2. Tournaments: meaning, need, importance and types of tournaments with fixtures- Knockout, League and Combination Tournament.
3. Meaning, Aim and Objectives of Intra-Mural and Extra-Mural.

Unit-4

1. Track Marking: Marking of 200 Meters track, Marking of 400 Meters track, Stagger marking for 200 meters and 400 meters run, Curve Marking- 800 meters run.
2. Field Marking: Sector Marking for Throws (Shot Put, Javelin, Discus), Marking for Jumps (High Jump and Long Jump).
3. Marking of Play Ground: Football, Hockey, Volleyball, Basketball, Badminton, Kabaddi, Kho-Kho, Handball, Tennis and Cricket.

References:

- Bucher C.A . and Wuest D.A. (1989). "*Foundation of Physical Education and Sports*" 10th edition St. Louis Times Mirror, Mosby College Publishing.
- Dhananjay S. & Seema K. (2009). "*Lesson Planning Teaching Method and Class Management in Physical Education*" Khel Sahitya Kendra, India.
- Gupta B.N. (2008). "*Methods of Physical Education*" Alfa Publication, New Delhi.
- Jain D. (2010). "*Manual of Playing Field*" Khel Sahitya Kendra, New Delhi,.
- Kutty, S., (2007). "*Research Methods in Physical Education*" Sports Publication, New Delhi.
- Kamlesh M.L (2005). "*Methods in Physical Education*" Friends Publication, New Delhi.
- Kochhar S.K. (2010). "*Methods and Techniques of Teaching* Sterling Publishers, New Delhi.
- Passija M, "*Methods of Physical Education*" Sports Publication: New Delhi, (2004).
- Singh, A. et al, (2007). "*Essential of physical Education*" 3rd edition, Kalyani Publisher , Ludhiana, Punjab.
- Sharma, D.R. et. al, (2005). "*Learning Callisthenic in Physical Education*" - Friends Publication, NewDelhi.
- Sandhu, K. (2004). —*Professional Preparation and career development in Physical Education and Sports*" Friends Publication, New Delhi.

- Sherril, C. (1998). "*Adaptive Physical Activity, Recreational and Sports*" 5th edition – McGraw Hill Publisher Ltd.
- Sharma O.P. (2000). "*Playground Construction and Dimension Manual*" Khel Sahitya Kendra, New Delhi.
- Walia J.S. (2003). "*Principles and Methods of Education*" Plant Publishers Jalandhar City.
- Singh Ajmer, et. al. *Modern Text Book of Physical Education Health & Sports*, Kalyani Publisher.
- Khan, Eraj Ahmed. *History of Physical Education*, Patna: Scientific Book Co.
- Leonard, Fred Eugene and Affleck George B. *Guide to the History of Physical Education*, Philadelphia Leo & Febiger, 1962.
- Majumdar D.C. *Encyclopedia of India Physical Culture Baroda Good Companions*, 1952
- Rice Emmett, A. Hutchinson John L. and Lee Marbal A. *Brief history of Physical Education*. New York: The Ronald Press Co. 1960.
- Rajgopalan K. A. *Brief History of Physical Education in India*, Delhi Army Publisher 1962.
- Wakharkar, D. G., *Manual of Physical Education*, Bombay, Pearl Publishers Pvt. Ltd.

Recreation

Unit – 1: Introduction

1. Introduction, Definition, Aim & objective of Recreation.
2. Need and Significance of Recreation in human life.
3. Principles and importance of Recreation in physical education and sports.
4. Recreation Providing Agencies.

Unit- 2 – Recreation Programmes

1. Criteria and Principle of Selecting recreational Programmes.
2. Historical Development of Recreational Activities in India.
3. Types of Recreational Activities (Indoor and outdoor, Water Sports, Cultural, musical, art and Crafts and Dance Activities.)

Unit- 3- Camping

1. Introduction, Aim and objective of the camping in sports.
2. Need and importance of the camping in sports and Physical Education.
3. Types, Organization and Administration of camping in field of physical education.
4. Camping Programme, Agencies promoting camping and education values of camping.
5. Selection & layout of the camp.

Unit-4- Play

1. Definition, aim and objective of play.
2. Importance of play in physical education.
3. Role and types of recreation in physical education.
4. Recreation for children and Adults.
5. Adventure activities for Recreation.

References:

- Dutta, A.K. (2004). *Games and Sports for Children: 1st edition*. Janvani Prakashan Vishwas Nagar, Shahdra, Delhi-110032.
- Jain, D. (2007). *Physical Education and Recreational Activities*. Khel Sahitya Kendra, New Delhi.
- Kang, G.S. and Deol, N.S. (2008). *An introduction to health & physical education*. Twenty first century publications, Patiala.
- Singh, A., Gill, J.S., Bains, J., & Brar, R. S. (2008). *Physical Education*. Kaliyani publications, New Delhi.
- Thour, M. (2006). *Camping Management in Physical Education*. Friends Publication, Delhi.

SPORTS PSYCHOLOGY

Unit – 1:-INTRODUCTION

1. Psychology and Sports Psychology: Definition, Meaning and Scope of sports psychology in physical Education.
2. Methods of sports Psychology and its importance in physical education.
3. Psychological factors affecting on physical performance.
4. Psychological benefits of exercises.

Unit- 2:-MOTIVATION AND STRESS MANAGEMENT

1. Motivation: Definition, Meaning , types, and techniques of motivation in sports.
2. Stress: Definition, Meaning and its types.
3. Causes of stress and Stress management techniques.
4. Anxiety: Definition, Meaning, types and causes of Anxiety management.

Unit- 3:-PERSONALITY TRAITS

1. Personality: Meaning, Types, and its Traits.
2. Role of Sports in personality development.
3. Intelligence: Definition, Meaning, types and Role of Intelligence in Sports.
4. Transfer of Training: Definition , Meaning, and its types.

Unit-4:-LEARNING

1. Meaning, Nature and its various phases of Motor skill Learning.
2. Principles of motor skill learning.
3. Learning : Meaning , definition, types and Laws of learning.
4. Implication/ significance of learning curve in physical education and sports.

Reference Books:-

- Cratty B.J (1968): *Psychology and physical Activity*, Englewood Cliffs.
- Dewey, J (1998): *Psychology*, Khel Sahit Kender New Delhi.
- Gangopadhyya. S.R. (2007): *Sports Psychology*, Sports Publication G-6,v23/23B, EMCA House, Ansari Road, Darya Ganj New Delhi.
- Kamlesh M.L (1998): *Psychology in physical education and sports*, Metropolitan Book company New Delhi
- Mann, M.L (1967): *Introduction to Psychology*, Oxford and I.H.B., Bharti Edition New Delhi
- Skinner, C.E. (1961): *Essentials of educational psychology*, Asia publishing House New Delhi
- Singer R.N (1975): *Motor Learning and Human performance*, MacMillan company New York.
- Walia, J.S. (1992): *Foundations of educational psychology*, Pal Publisher Jalandhar City

- Ashel, M.H. — Sport psychology: From theory to practice (2003) San Francisco: Benjamin-Cummings.
- M.L. Kamlesh *Education Sport Psychology*; New Delhi, Friends Publications, (2006).

KINESIOLOGY

Unit – 1

1. Meaning, Definition, Aim and Objectives of kinesiology in physical education.
2. Importance of kinesiology in physical education and sports.
3. Therapeutic Exercise:- Active, Passive, Resistive, Stretching and their application for rehabilitation.
4. Meaning, Functions and types of bones.

Unit- 2

1. Meaning and Classification of joints.
2. Structure and functions of joints.
3. Fundamental movements around the Joints.
4. Plane and Axis and its significance in sports.

Unit- 3

1. Meaning and types of muscle.
2. Properties of muscles.
3. Types of muscle contraction-isotonic, isometric, isokinetic, agonists, antagonists.
4. Reciprocal innervations, all or none law, angle of pull, reflex-action, muscle tone.

Unit-4

1. Shoulder Girdle: (Structure, origin, insertion, innervations, action) trapezius, pectoralis minor, serratus anterior, subclavius, rhomboid and levator scapula.
2. Hip Joint: (structure, origin, insertion, innervations, action) iliopectoralis, sartorius, rectus femoris, gluteus medius, gluteus minimus, tensor fascia latae and gluteus maximus.
3. Application of kinesiology in daily life:- Sitting, Walking, Running and Jumping.

Reference books

- Brower. M.R. (1978). *Efficiency of Human movements*. Philadelphia ,W.E.Saunders Co.
- Copper., & Clesco. (1968). *Kinesiology*. St, Louis, C.V. Mosby Co.
- Goswami, J. (2007). *Basic kinesiology*. Friends publications, New Delhi.
- Lynn S.L.(2002). *Clinical Kinesiology for Physical Education*. Jaypee Brothers, New Delhi: 3rd ed.
- Mahaboobjan, A. (2010). *Kinesiology and biomechanics*. Khel sahitya kendra publications, New Delhi.
- Philip, J.R., & Burk, R.K. (1974). *Kinesiology & applied anatomy*. Lee & febiger publications.
- Floyed, R.T. and Thompson, C.W. (2006). "Manual of structural Kinesiology", Mc Graw Hill, Boston.
- Scott. M.G. (1992). *Analysis of human Motion*, "New York.
- Wells, K. (1984). *Kinsiology*. Philadelphia W.B. saunders Co.
- Well, K. and Kathryn, F.L. (1992). *Kinesiology Scientific basic of Human Motion*, 8th ed..Sunder Publishing Philadelphia.
- Brar R.S, Walia Roji, Gill Manmeet, Kanwar Sonia, Kalta Sushil, Thapa Anshul Singh (2011) —*Fundamentals of Physical Education*ll. Ludhiana, Kalyani Publication.
- Bunn, John, W. "Scientific Principles of Coaching".
- Deiels, L. and Worthinghan, C., *Muscle Testing Techniques of Manual Examination*, Lousion W.B. Esundeus Com, 1956
- James G. Hay. "The Biomechanics of Sports Technique".
- Jenson, C.R. & Schult, G.W, *Applied Kinesiology: The Scientific Study of Human Performance* (2nd Ed.) New York: MC Grautids Book co., 1977
- Simonian Charles. "Fundamentals of Sports Biomechanics".
- Wells, Katharine, P. "Kinesiology", Philadelphia.

REMEDIAL AND MASSAGE

Unit – 1: REMEDIAL & POSTURE

1. Definition of Remedial, Physiotherapy and corrective exercises.
2. Posture—Meaning and characteristics of correct and incorrect posture.
3. The cause of incorrect posture and its corrective measures.
4. Testing of correct posture.
5. Classification of Posture.

Unit- 2: POSTURAL DEFORMITIES

1. Postural deformities: Kyphosis, Lordosis, Scoliosis, Bow legs, Knock knees, flat foot.
2. Causes of various Postural deformities.
3. Corrective exercise for various postural deformities.
4. Physiotherapy Treatment for correcting various postural deformities.

Unit- 3: MASSAGE

1. Massage: Meaning, Definition and brief history of massage.
2. Role and effects of massage in sports.
3. Techniques of massage for the human back, chest, abdomen, head and face.
4. Types of massage for the human limbs and back with the practical instruction.
Effleurage, Percussion, Kneading, Friction, striking, clapping and beating massage.

Unit-4: CLASSIFICATION OF POSITIONS

1. Classification of the fundamental positions, modified positions and its respective purposes.
2. Exercises with practical instructions:- Free mobility exercises, Assisted exercises and Resisted exercises.
3. Exercises with practical instructions:-Foot, Shoulder, Trunk and knee joints.
4. Remedial exercises of the following:-Finger, wrist, elbow and ankle joints.

References:

- Gazzaniga, V. and Marrinozz, I.S. (2018) *Healing Bodies-The Ancient origin of massage and roman practices*, Medicina Historica.
- Grace, S. and Geaves, J. (2011) *Text Book of Remedial Massage*, Churchill livingstone, Australia.
- Jean, E (1998) *Massage Therapy- Theory and Practice*, Appleton and Lange
- Kisner, C. And Colby, L.A (2002) *Therapeutic exercises*, Dovni Company Publisher
- Mark, F. (1994) : *Theory and Practice of Therapeutic Massage*, Milady Publishing.
- Moyer, C.A et. al. (2004)- *A Meta-Analysis of massage therapy research*, Psychological Bulletin
- Mary, V. L. (1956): *Massage and Medical Gymnastics*, Milady Publishing.
- Schwartz, J. et. al. (2013) *Massage therapy healthcare profession*, 2nd seattle, W.A.
- Tidy (1976): *Massage and Remedial Gymnastics*, Milady Publishing.
- Yuan, S.L.K et. al. (2015) *Effectiveness of deferent styles of massage therapy* A systematic review and meta-analysis, Manual Therapy.

OLYMPIC MOVEMENT

UNIT – I

1. Origin of Olympic Movement.
2. Philosophy of Olympic Movement.
3. The early history of the Olympic Movement.
4. Educational and cultural values of Olympic Movement.

UNIT – II

1. Origin of Modern Olympic Games.
2. Significance of Olympic Ideals, Olympic Rings, Olympic Torch, Olympic Flag.
3. Olympic Protocol for member countries.
4. Olympic Code of Ethics.

UNIT – III:

1. Different Olympic Games.
2. Para Olympic Games.
3. Summer Olympics.
4. Winter and Youth Olympic Games.

UNIT – IV:

1. Committees of Olympic Games.
2. International Olympic Committee - Structure and Functions.
3. National Olympic committees and their role in Olympic movement.
4. Olympic commission and their functions. Olympic medal winners of India.

References:-

- Burbank, J. M. et. al. (2001). *Olympic dreams: the impact of mega-events on local politics*: Lynne Rienner publications, US.
- Goldblat, D. (2017). *The games: a global history of the Olympics*. W. W. Norton & Company, New York.
- Osborne, M. P., & Boyce, N.P. (2004). *Magictree house fact tracker: ancient Greece and the Olympics*. Random house books for young readers, New York.
- Wallechinsky, D., & Loucky, J. (2012). *The complete book of the Olympics*. Aurum Press, Landon.
- Wallechinsky, D., & Loucky, J. (2014). *The complete book of the winter Olympics*. Amazon Difital Services LLC, US.
- Woff, R. (2000). *The Ancient Greek Olympics*. Oxford University publications.

OFFICIATING AND COACHING

Unit – 1

1. Definition, Meaning and Importance of Officiating, Principles of Officiating, Qualities of good Officials.
2. Duties of Officials:- Pre-game, During Game, Post Game.
3. Measures for Improving the Standard of Officials.
4. Relation of Officials with Managements, Players, Coaches and Spectators.

Unit- 2

1. Rules of Different games and Dimensions of Play fields:- Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Volleyball.
2. Lay out of Standard Track. Points to keep in mind while Laying out Track, Dimension and Marking of Standard Track.

Unit- 3

1. Number of Officials and their Specific Duties in Different Sports & Games: Athletics (Track and Field Events), Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Volleyball.
2. Preparation of Score Sheets.
3. Warming-up and Cooling down, Principles of Training.
4. Methods of Conditioning and Training, Circuit Training Method, Interval Training Method, Fartlek Training Method.

Unit-4

1. Meaning of Coach and Coaching, Principles of Coaching.
2. Qualities and Qualifications of a good coach.
3. Coaching Aids and Devices, Preparation of Coaching lessons.
4. Safety measures in Games and Sports.
5. Periodization:- Meaning, Definition and types of Periodization.
6. Principles and Factors affecting Periodization.

REFERENCES:

- Anne, P (1986): *Coach Education, Preparation for a Profession*, British Library Cataloging in Publication Data.
- Brar. T.S. (2002) *Officiating Techniques in Track and Field*, Gwalior bhargawe Press.
- Billie J. et. al. (1982):-*Guide to Effective Coaching Principles and Practice*, Library of Congress Cataloging in Publication Data, Printed in the USA.
- Desouza A.J (1999):-*Track Geography and Fields Sides*, Chennai. DBAC Sports Envision.,
- John L. B. (1972): *Scientific Principles of Coaching*, by Prentice- Hall, INC. Englewood Cliffe, New Jersey.
- John D. L. (1951): *Psychology of Coaching*, Prentice- Hall, INC. Englewood Cliffe, New Jersey.
- Jack H. L and Judy A. B (1971): *Psychology of Coaching, Theory and Application*, Publication.
- Leonard, R (2005): *The Administration Side of Coaching*, West Virginia University.
- Rawat, A. K (2009): *Coaching in Sports*, Sports Publication, New Delhi.
- Singh, Baljeet —*Athletic Conditioning* (2006-07) Sports Publication, G-6, 23/23B EMCA House, Ansari Road, Darya Ganj New Delhi.
- Novich M. Max, —*Training & Conditioning of Athletes.* (1983) Lea & Febriger 600S. Washington Square Philadelphia, PA 19106, USA
- Bosen, Ken O., *Track and Field Fundamental Techniques*, Patiala: N.I.S. Publication.
- Dyson, Geoffrey HG, Edmundson, Joseph, —*Athletics for Schools.* (1969) University of London Press Ltd..
- Doherty, J. Mannet, —*Track&Field* Englewood Cliffs, N.J. Prentice Hall Inc.
- Dyoon, Geoffrey, G.H. *The Mechanic of Athletics* (1962) London University of London press Ltd
- Hodks, Gens. *Application off Weight Training to Athletics* (1962) Englewood Cliffs, N.J. Prentice Hall Inc.
- Malhotra, Ashok Kumar *A Guide to be an Athlete*, Krishna Publication Books New Delhi.
- Mohan, V.M. *Athletics for beginners*, Metropolitan Books New Delhi.

BIO-MECHANICS

Unit – 1

1. Meaning, Definition, aim and objectives of biomechanics.
2. Principles of biomechanics in physical education.
3. Importance of biomechanics in physical education and sports.
4. Role of biomechanics in physical education and sports.

Unit- 2

1. Distance and displacement.
2. Motion: Meaning, types and Characteristics.
3. Speed, velocity and Acceleration.
4. Laws of motion (Newton's Law).

Unit- 3

1. Lever: meaning, types, characteristics and their mechanical advantage.
2. Friction: meaning, types and characteristics.
3. Centripetal and centrifugal forces.
4. Center of gravity and line of gravity.

Unit-4

1. Force: Meaning and its types.
2. Equilibrium: Meaning, Types and its Principles.
3. Inertia, weight and mass.
4. Projectile.
5. Work, power and energy.

Reference Books:

- Goswami, J. (2007). *Basic kinesiology*. Friends publications, New, Delhi.
- Hay, J.G. (1978). *The Biomechanics of sports techniques*. Pearson education, US.
- Kathryn, L. & Hamilton, N. (2001). *Kinesiology-scientific basis of human motion.*, Mcgraw hill New York.
- Mahaboobjan, A. (2010). *Kinesiology and biomechanics*. Khel sahitya Kendra publications, New Delhi.
- McGinnis, P.M. (2005). *Biomechanics of sports and exercise, human kinetics*. Champaign, USA.
- Susan, L.H. (1995). *Basic biomechanics*. McGraw hill, New York.
- Brar R.S, Walia Roji, Gill Manmeet, Kanwar Sonia, Kalta Sushil, Thapa Anshul Singh (2011) "*Fundamentals of Physical Education*". Ludhiana, Kalyani Publication.
- Bunn, John, W. "*Scientific Principles of Coaching*".
Deiels, L. and Worthinghan, C., *Muscle Testing Techniques of Manual Examination*, Lousion W.B. Esundeus Com, 1956 • James G. Hay. "*The Biomechanics of Sports Technique*".

TEST, MEASUREMENT AND EVALUATION

UNIT – I: INTRODUCTION

1. Meaning and Definition of Test, Measurement and Evaluation.
2. Objectives and scope of Test, Measurement and Evaluation.
3. Principles of Test, Measurement and Evaluation.
4. Importance of Measurement and Evaluation in Physical Education.

UNIT – II: TEST

1. Construction of Knowledge and Sports Skill Test.
2. Criteria for Test Selection: Reliability, Validity, Objectivity.
3. Tuttle Pulse Ratio Test.
4. Harvard Step Test.

UNIT – III:-Games & Motor Fitness Tests

1. SAI Hockey Skill Test.
2. Knox Basketball Test.
3. Philip's J.C.R Test.
4. AAHPER Youth Fitness Test.

UNIT – IV: Skill Tests

1. Modified Brady Volleyball Test.
2. SAI Badminton Skill Test.
3. SAI Athletics Skill Test.
4. McDonald Test.

References:-

- Barron, H.M. and Mchee, R. (1997). *A Practical approach to measurement in physical education*. Philadelphia: Lea and Febiger.
- Clarke, H.H and Clarke, D.H. (1991). *Application of Measurement to Physical Education*, Englewood Cliffs, NJ, Prentice Hall.
- Johnson, B.L and Nelson, J.K, (1988). *Practical Measurement for Evaluation in Physical Education*, Delhi, Surjeet Publications.
- Kansal, D.K, (1996). *Test and Measurement in Sports and Physical Education*, D.V.S Publications, New Delhi.
- Kansal, D. K, (2008). *Applied Measurement Evaluation and Sports Selection*. Sports and Spiritual Science Publication: New Delhi.
- Marrow J. R. and Jackson A.W, (2010). *Measurement and Evaluation in Human Performance Publisher: Human Kinetics*; 4th edition.
- Phillips D.A and Honark, J.S, (1979). *Measurement and Evaluation in Physical Education*, NewYork, John Wiley and Sons.

CONTEMPORARY ISSUES IN PHYSICAL EDUCATION

UNIT – I

1. Developments in Physical Education.
2. Challenges in Physical Education in Current Scenario.
3. Professionalism in Physical Education and Sports.
4. Misconceptions about Physical Education.

UNIT – II

1. Physical Activity and Its Importance.
2. Physical Activities for growing children.
3. Factors Affecting Physical Activity: Demographic, Cognitive, Behavioral and Community.
4. Associations between Physical Activity and CVD Risk Factors.

UNIT – III

1. Meaning, Need and Importance of Adapted Physical Education and Sports.
2. Purpose, Aims and objectives of Adapted Physical Education and Sports.
3. Program organization of Adapted Physical Education and Sports.
4. Adapted Sports-Para Olympics, Role of Games and Sports in Adapted Physical Education.

UNIT – IV

1. Safety Education and Fitness Promotion, health and Safety in Daily Life, fitness centers, Health club, Recreation club and Adventure sports.
2. First Aid and Emergency Care, Common Injuries and their Management.
3. Modern Life Style and Hypo-kinetic Disease–Prevention and Management.
4. Application of Science to Physical Education and Sports.

References:-

- Cratty, B.J. (2006) *Adapted Physical Education in the Mainstream*. (4th Edition) Love Publishing Company.
- Costa D.M. & Sharon R.G. (1994). *Women and Sports; Interdisciplinary Perspectives*. Human Kinetics.
- Paul B. & Taylor J. (1996). *Advance Studies in Physical Education and Sports*, Thomas Nelson & Sons Limited, UK.
- Winnick, J.P (2005). *Adapted Physical Education and Sports*. Human Kinetics (4th Edition).

SPORTS MANAGEMENT

UNIT – I:

1. Introduction, Meaning and definition of sports management.
2. Need, Importance and scope of sports management.
3. Skills of Management: Personal Skills, Human Skills, Conceptual Skills, Technical Skills and Conjoined Skills.
4. Functions of Management: Planning, Organizing, Staffing, Budgeting, Controlling and Evaluating management.

UNIT – II:

1. Manager–Roles of Manager: Interpersonal roles, Informational Roles, Decisional Roles.
2. Qualities and Qualification of a manager.
3. Managerial Skills and procedure: Effective Communication, Staff Meetings, Committees and office Management.
4. Management of Physical Education and Sports at.
 - 1) School
 - 2) Colleges
 - 3) University

UNIT – III:

1. Introduction, meaning, definition and principle of personal management.
2. Introduction, meaning and principles of planning.
3. Meaning, types and requirement of facilities.
4. Construction and management of sports infrastructure:-Gymnasium and swimming pool.
5. Meaning, need, principle and importance of equipment.

UNIT – IV:

1. Meaning, Definition, steps and factors effecting curriculum development.
2. Public relation: Meaning, definitions, principles, planning and organizing public relations.
3. Financial Management: Need, importance and Principles of Financial Management.
4. Meaning, definition, objectives and principles of Budget.
5. Budget – Preparation, Sources of funds and expenditure of Budget.

References:-

- Clyde K. (1953). *Teaching Methods of Physical Education*, Mc. Graw Hill Inc.
- Charles E. F and Irvin A. K., (1977). *Administration of High School Athletics* Prentice Hall, Inc. New Jersey.
- Frost, B. et. al. (1992). *Administration of Physical Education and Athletics Concepts and Practices* (New Delhi: University Book Stall) 2nd Ed.
- Walker J., (1976). *Modern methods in secondary school, physical education*, Allyn and Bacon, Inc. Boston.
- M.L Kamlesh. *Management Concepts in Physical Education and Sport* (2nd revised and updated ed); New Delhi; Khel Sahitya Kendra, (2016).
- P.Cherlladurai. *Sport Mangement-Macro Perspectives*; London, Ontario (Canda); Sports Dynamics (1985).

SPORTS NUTRITION AND WEIGHT MANAGEMENT

UNIT – I:

1. Meaning and Definition of Nutrition and Sports Nutrition.
2. Types of Nutrition:-Micro and Macro.
3. Types of Nutrients:-Carbohydrates, Fat, Protein, Water, Minerals, Vitamins.
4. Balance Diet in sports.
5. Role of Nutrients in body and Sports.

UNIT – II:

1. Process of Metabolism.
2. Water Balance: Role of Hydration during exercise.
3. Meaning of Calorie, Calculation of Calorie.
4. Daily calorie requirement and expenditure.
5. Factors to consider for developing Nutrition Plan.

UNIT – III:

1. Meaning of weight management.
2. Concept of BMI, Calculation of BMI.
3. Obesity and its types, Health risks associated with obesity, Causes of obesity and their remedies.
4. Physical Activity for school children.

UNIT – IV:

1. Planning and process of weight management.
2. Role of physical activity and diet in weight management.
3. Weight management program for obese children.
4. Daily calorie intake and expenditure for weight management.

References:-

- Alston, V. (2015). *Lean muscle diet for beginners: healthy weight loss nutrition, exercises and workouts for a perfect body*. Mihails Konoplovs publications.
- Bailey, V. (2016). *Beginner's Nutrition Guide: To Enhance Sport Performance, Healthy Lifestyle, and Weight Loss*. Createspace independent publications.
- Bean, A. (2017). *The complete guide to sports nutrition, 8th edition*. UK, Landon: Bloomsbury sport publications.
- Haff, G.G. (2008). *Essentials of sports nutrition study guide*. USA, Totowa, N.J. Humana Press Publications.

- Maughan, R.J. (2000). *Nutrition in sports*. United States: Wiley blackwell science publications.
- Murti, N. S. (2018). *Health education and sports nutrition*. New Delhi: Sports Publications.
- Anita Bean, “*The Complete guide to Sports Nutrition: How to eat for maximum Performance*” Third Edition, (2000) published by A&C Black (Publishers) Ltd., 37 Soho Square, London W1D 3QZ

YOGA AND ENVIRONMENTAL SCIENCES

UNIT – I:

1. Meaning, definition, Aims and Objectives of Yoga.
2. Streams of yoga: Karma Yoga, Bhakti Yoga, Gyana Yoga, Raj Yoga, Hatha Yoga, Mantra Yoga, Kundalini Yoga.
3. Fundamentals or Essentials of Astang Yoga: Yama, Niyama, Prahayama, Pratyahara, Dharana, Dhyana, Samadhi, Patanjali Yoga, Sutra.
4. Techniques, Benefits and Applications of the following Asans:
 - 1) Meditative Asana: Sukh Asana, Sidha Asana, Padam Asana
 - 2) Relaxative Asana: Shav Asana, Makar Asana,
 - 3) Culture Asana: Bhujang Asana, Chakar Asana, Dhanur Asana, Gomuk Asana, Hal Asana, Matsya Asana, Salab Asana, Ardhamatsyendra Asana, Mayur Asana, Virkh Asana .

UNIT – II:

1. Meaning, Benefits and Methods of Meditation.
2. Forms of Meditation: Mantra Meditation, Breathing Meditation, Silent Meditation.
3. Techniques of Bhadras: Jhiva, Jalandhar, Uddiyan, Mool.
4. Yoga and Diet: Classification and Importance of food: Tamestic foods, Rajasic foods, Sative foods, Diet and its Importance in Cure of diseases.

UNIT – III:

1. Meaning, Scope and Importance of Environmental Sciences.
2. Earth, Man and Environment.
3. Environmental Education and Awareness.
4. Environmental Problems: Ozone Depletion, Global Warming and Climate Changes.

UNIT – IV:

1. Air Pollution: Major Sources of Air Pollution, Air Born Diseases and their Effects on Health.
2. Water Pollution: Major Sources of Water Pollution, Diseases from Water Pollution and their Effects on Health.
3. Noise Pollution: Sources of Noise Pollution, Effects of Noise Pollution on Health.
4. Role of Individual in Prevention of Pollution.

References:-

- Agarwal, K.C. (2001). *Environmental Biology*. Nidi publication, Bikaner.
- Alader K. (1999). *Yoga for every Athlete (Secrets of an Olympic Coach)*. Jaico publishing, Delhi.
- Bedi Y. (1985). *Social and Preventive Medicine*. Atmaram and sons, New Delhi.
- Brown, F. Y. (2000). *How to use yoga*. Sports publication, Delhi.
- Brown, F.Y. (2006). *How to use Yoga and Sports*. Durga ganj publication, New Delhi.
- Shekar, K.C. (2007). *Yoga for Health*. Khel sahtya kendra publication, New Delhi.
- Kumar, A. (2007). *Yoga for Health and Body*. Khel sahtya kendra publication, Delhi.
- Rajjan, M.S. (1985). *Yoga strengthening of relaxation for sportsman*. Allied publishers, New Delhi.
- Rana, A. (2006). *Yoga and health promotion in Schools*. Sports publications, New Delhi.

- Sarswati, S.S. (1969). *Asana, pranayama, mudra, bandh*, Bihar school of yoga publication
- Shankar, G. (1998). *Holistic approach of yoga*. Aditya publishers, New Delhi.
- Debnath, Monica “*Basic Core Fitness through Yoga and Naturopathy*” (2006-07) Sports Publication, G-6,23/23B EMCA House, Ansari Road, Darya Ganj New Delhi.
- Yogeswar, “*Text Book of Yoga*”,(2004) Penguin Books.
- Harvey, Paul –*Yoga for Everybody*”, (2001)Tucker Slingsby Publisher Ltd
- Sharma, Lalita –*All You Wanted to Know About Yoga*”, (1991)Sterling Publisher Pvt. Ltd.
- Sri Ananda, “*The Complete Book of YOGA Harmony of Body and Mind*” 1999; Published by Orient Paperbacks, Madrasa Road, Kashmere Gate, New Delhi-110006.
- Vijayendra Patap, “*A Teacher’s Guide for Beginning Yoga*” Ist Ed. Indian (1987) Published by SKY Foundation 339 Fitzwater Street, Philadelphia, Pennusyvani, 19147 USA.
- Mira Mehta, “*How to Use Yoga*” (2002) Published by Hermes House, Anness Publishing Limited 89-89 Blackfriars Road, London.
- Bhanot, T.R., “*Know About Yoga*” (1995) Published by Dreamland Publications, 4425, nai Sarak, Delhi-110006. 9. Iyenger, B.K.S, –*Light on Yogal* Great Britain (1982) George Allenand, Unwin,.

SPORTS MEDICINE AND REHABILITATION

UNIT – I: Introduction

1. Definition, Aims and objectives of sports medicine.
2. Role of sports medicine in physical education and sports.
3. Importance and Principles of sports medicine.
4. Energy transfer in body and exercise.
5. Energy Expenditure during various activities.

UNIT – II: Sports Injuries

1. Causes, Prevention, and Treatment of Sprain, Strain, Contusion, Abrasions, Laceration and Fracture.
2. P.R.I.C.E and Athletic Heart.
3. Effects of exercises on cardiovascular system.
4. Sudden cardiac death in sports.

UNIT – III: Rehabilitation

1. Importance and objectives of Rehabilitation.
2. Classification:–Active Movement (Free, Assisted, Resisted), Passive Movement (Relaxed, Forced), Movement (Relaxed & Forced).
3. Second Wind and Oxygen Debt.
4. Regulation of Respiratory during Exercise .

UNIT – IV: Therapeutic Modalities

1. Definition, meaning and importance of Therapeutic Modalities.
2. Therapeutic Modalities: Cold Therapy, Infrared lamp, Contrast Bath, Wax Bath, tractions, ultrasonic and ultrasound.
3. Role of Therapeutic Modalities in the field of Physical Education and Sports.
4. Principles of Therapeutic Modalities in sports.

References:-

- Charles E. et. al. (1977). *Administration of High School Athletics*, Prentice Hall, Inc. New Jersey.
- Clyde K. (1953). *Teaching Methods of Physical Education*, Mc. Grew Hil Inc.
- Frost, B .et. al. (1992). *Administration of Physical Education and Athletics Concepts and Practices* (New Delhi: University Book Stall) 2nd Ed.
- Walker, J. (1976). *Modern methods in secondary school, physical education*, Allyn and Bacon, Inc. Boston.

ORGANISATION AND ADMISINTRATION

UNIT – I: Introduction

1. Meaning and definition of Organization and Administration.
2. Need and Importance of Organization and Administration in the field of physical Education and Sports.
3. Professional Qualification and Responsibilities of physical Education teacher at school and college level.
4. Meaning and principles of Pupil leadership.

UNIT – II: Time Table and Planning

1. Time Table- Meaning , Need and Importance of time table.
2. Principles and factor affecting time table.
3. Planning:- Meaning, steps and principles of planning in physical education.
4. Presentation Techniques:-Personal preparation ,Technical Preparation.

UNIT – III: Facilities and Equipment Management

1. Equipment's- Need, Importance ,Purchase, Care and Maintenance of equipment.
2. Facilities and Equipment Management: Area, layout ,care and types of facilities/ Infrastructure of Indoor and Outdoor playfield.
3. Meaning, aims ,objectives and its essential points to conduct Intramural.
4. Care of Sports Facilities: Gymnasium , Swimming Pool and Playgrounds.

UNIT – IV: Budget and Records

1. Budget: Meaning, Importance and Criteria of Good Budget.
2. Sources of Income, Expenditure and Preparation of Budget.
3. Records and Registers: Maintenance of Attendance Register, Stock Register, Cash Register, Physical Efficiency Record, Medical Examination Record.
4. Supervision and Inspection: Meaning of supervision and Inspection.
5. Qualities of a Supervisor and methods of Supervision.

References:-

- Ann. L. (2002), *Women fitness programme development Human*.
- Erickson, B.O. et. al (1990), *‘Sports Medicine’* Guinness Pub. Great Britain.
- Jeyaprakash (2003), *C.S Sports Medicine*, J.P. Brothers Pub, New Delhi.
- Khanna, G.L (1990), *Exercise Physiology & Sports Medicine*, Lucky Enterprises, Delhi.
- Million B Morris (1995), *Office sports medicine* (Hanley & Bilfins Inc. Philadelphia.
- Pandey, P.K (1987). *Outline of Sports Medicine*, J.P Brother Pub, New Delhi.

RESEARCH METHODOLOGY AND SPORTS STATISTICS

UNIT- I: INTRODUCTION

1. Definition, Meaning , Aims and Objectives of Research.
2. Need and Importance of Research in Physical Education.
3. Types of Research.
4. Meaning of research Problem, Formulation of Research Problem.
5. Criteria of a Research Problem.

UNIT- II: HYPOTHESIS AND REVIEW OF LITERATURE

1. Meaning and definition of Hypothesis.
2. Importance and types of Hypothesis.
3. Need of review of Literature.
4. Sources of Literature.
5. Planning of a review work.

UNIT- III: DATA COLLECTION AND SAMPLING

1. Collection of data through questionnaire and interview method.
2. Collection of data through observation and case study method.
3. Meaning and types of sampling.
4. Importance of sampling.
5. Sample size, sampling and Non-sampling error.

UNIT- IV: STATISTICS AND RESEARCH PROPOSAL

1. Meaning, Need and importance of statistics in physical education.
2. Meaning, Principle and advantages of graphical representation of data.
3. Meaning of the measures of central tendency, computation of measures of central tendency.
i.e. Mean, Median and Mode.
4. Meaning, Need and importance of research proposal.
5. Research report: Precaution for writing Research reports.

References:-

- Author's Guide: (1991) *Research Methods Applied to Health Physical Education and Recreation*, Washington, D.C.
- Best J.W., (1982) *Research in Education*, Prentice Hall, New Delhi.
- Clarke H. D., (1985) *Research Processes in Physical Education, Recreation and Health*, Prentice Hall Inc., Englewood Cliffs, New Jersey.
- Kamlesh M.L., (1973) *Methodology of Research in Physical Education and Recreation*, AAHPER, Washington D.C.
- Kothari, C.R. (1990) *Research Methodology Methods and Techniques*, Vishwa Prakashan-New Delhi.
- Morrison, Donald, F (1990). *Multivariate Statistical Methods*, New York: McGraw Hill.

SPORTS TRAINING

UNIT – I

1. Meaning , Definition, Aim and objectives of Sports Training.
2. Importance and Principles of Sports Training in Physical Education and Sports.
3. Qualities and Qualification of Good Coach.
4. Meaning, precautions and benefits of warming-up and Limbering down.

UNIT – II

1. Strength: -Definition, Meaning, Types and methods of developing strength.
2. Endurance: Definition, Meaning, Types and methods of developing endurance.
3. Speed: Definition, Meaning, Types and methods of developing speed.
4. Flexibility: Definition, Meaning, Types and methods of developing flexibility.

UNIT – III

1. Meaning, Importance and principles of Training Load.
2. Meaning, Causes and Symptoms of over load.
3. Training methods: Cross Country, Weight Training, Circuit Training, Fartlek Training, Plyometric Training.

UNIT – IV

1. Definition and Meaning of Technique, Skill and Style.
2. Meaning, definition and methods of Technical Training.
3. Definition, Meaning and methods of Tactical Training.
4. Talent Identification and its Importance.

Reference Books:

- Baechol, T.R. & Earle R.W, (2000): *Essential Strength Training and Conditioning*, Human Kinetic Publisher Inc. USA.
- Daniel, D. et. al. (1993), *Principles of Sports Training*, Morby- year Book Inc. St.
- Matveyew, L.P. (1991): *Fundamentals of Sports Training*, Mir Publisher.com Moscow.
- Patrick, B. et-al. (2018) *Complete sports Training*, Chaplain -publishing, LLC.
- Ronald, P. F. (2002): *Concept of Athletic Training*, Jones and Bartlett Publisher.
- Singh, H. (1991): *Science of sports Training*, D.V.S publication New Delhi.
- Ronald P. Feigner —Concept of Athletic Training, (2002) Jones and Bartlett Publishers.
- Bean, Anita “*The Complete Guide to Sports Nutrition : How to eat for maximum Performance*”, (2000)3rd Edition, Published by A & C Black Ltd. London.

EXERCISE PHYSIOLOGY

UNIT – I: INTRODUCTION

1. Meaning, Nature, Scope and Importance of Exercise Physiology in Games and Sports.
2. Muscle movement mechanism, Sliding filament theory.
3. Effect of Exercise on muscular System and Circulatory system.
4. Carbohydrate loading, Protein Loading, Pre-event meal, feeding during exercise and fluid ingestion during and after exercise.

UNIT – II: NUTRITION

1. Definition and meaning of Nutrition.
2. Nutritional and training components of diet.
3. Effect of nutrition on athletics performance.
4. Precautions, Energy expenditure and treatment of obesity.

UNIT – III: PHYSIOLOGICAL BASIS

1. Oxygen and performance, Energy Dynamics; Aerobic & Anaerobic Sources.
2. Human Energy Expenditure at rest and exercise.
3. High Altitude Training and Adaptation.
4. Cardiovascular and Muscular Adaptation of Training.

UNIT – IV: APPLIED PHYSIOLOGY

1. Female Specific Problems and physiological changes of women in various level of ages.
2. Role of Exercise in growth and development.
3. Body Composition and Sports Performance.
4. Exercise Benefits at various Stages of Life.

References:-

- Ann. L. (2002). *Women's Fitness Program Development Human*, Kinetics.
- Bengt, O. E. et al, (1990). *Sports Medicine*, Guinness Publication.
- Christine, M. D., (1999). *Physiology of Sports and Exercise*, Human Kinetics, USA.
- Mottran, D. R., (2005). *Drugs in Sports* (4th Ed) Routledge Taylor and Francis Group.
- Erikson, B.O. et al, (1990). *Sports Medicine*, Guinness Pub. Great Britain.
- Jain, R., (2002). *Sports Medicine*, KSK, New Delhi.
- Jeyaprakash, C. S., (2003). *Sports Medicine*, J.P. Brothers Pub., New Delhi.2003.
- Khanna, G.L., (1990). *Exercise Physiology & Sports Medicine*, Lucky Enterprises, Delhi.
- Mathew D.K. & Fox E.L, (1976) *Physiological Basis of Physical Education and Athletics*, W.B.

KINANTHROPOMETRY

UNIT – I

1. Meaning, definition, aim and objectives of Kinanthropometry.
2. Importance and principles of Kinanthropometry in the field of physical education & sports.
3. Role of Kinanthropometry in selection of sports events.
4. Meaning, definition and classification of anthropometry.

UNIT – II

1. Importance and principles of anthropometry in sports.
2. Utility of anthropometric instrument on players.
3. location of different land marks on the body.
4. Skill for anthropometry measurement.

UNIT – III

1. Growth:-Meaning, importance, physical growth, process of normal growth in adolescence.
2. Maturation :-Meaning, importance and scope, measurement of maturity.
3. Body proportion:-Meaning, importance and sports specific body proportion and indices.

UNIT – IV

1. Body mass index: Meaning, method of determination and importance of body mass index in sports.
2. Body composition : Meaning, importance and scope of body composition in sports.
3. Somatotyping : Meaning, importance classification & scope of somatotyping in sports, Sheldon's Heath and Carter method of somatotyping.
4. Instruments measuring body parts (Anthropometric Kit).

References:-

- Norton, K. and Roger, E. (2018). *Kinanthropometry and Exercise Physiology*, (Routledge).
- Pheasant, S. (1996). *Body space: anthropometry, ergonomics and design of work*. Taylor & Francis, New York.
- Phillips, D. A., & Hornak, J. E. (1979). *Measurement and evaluation in physical education*. New York: John Willey and Sons.
- Roger, E. and Thomas, R. (2001). *Kinanthropometry and Exercise Physiology Laboratory Manual* (Psychology Press).
- Sodhi, H.S., & Sidhu, L.S. (1984). *Physique and selection of sports- a kinanthropometric study*. Patiala: Punjab Publishing House.

SPORTS JOURNALISM

UNIT – I

1. Meaning, definition and historical background of journalism.
2. Introduction to mass media, print, electronic and informal.
3. Role of journalism in society and characteristics of good journalism.
4. Sports writers, commentators and broadcasters.

UNIT – II

1. News Content: Entertainment Features, Timely, Stories, Hard News, Soft News.
2. Objectives of News writing.
3. Journalism in modern era.
4. Procedure of News writing: The Heading, The Slug, Writing of News Papers Story.

UNIT – III:

1. Ethical Journalism and Laws of journalism.
2. Making of the Headlines.
3. Supplements and Sections: Types of stories, Women section, Traditional contents, Sunday Magazines and other sections.
4. Beat Reopening: Defining a beat, Types of Beat, Lead: Meaning and Types of Lead.

UNIT – IV:

1. Starting of campus or student Newspaper: Paper Dimension and Quantity. Cost of Illustration, Delivering the newspaper, Finance, Sales of advertising, establishing newspaper policies and Formation of an editorial board. 'Selecting staff members, Choosing Editors and Evaluating the Newspapers success.
2. Opportunities in Journalism.
3. Writing reports of sports events.
4. Covering sports for radio and television channels (Art of Commentating)

References:-

- Aamidor, A. (2003). *Real Sports reporting*. Indiana university press, Valparaiso, USA.
- Ahuja, B.N. (1988). *Theory and practice of journalism*. Surjeet publication, New Delhi.
- Andrew, P. (2005). *Sports journalism: A practical introduction*. Sage publication.
- Boyle, R. (2006). *Sports journalism: context and issues*. Sage publication.
- Singh, A. et. al. (2008). *Physical Education*. Kaliyani publications, New Delhi.
- Stofer, T.K. et. al. (2010). *Sports journalism: an introduction to reporting and writing*. Rawman and Littlefield publications, USA.

- Mishra, Sharad “ *Text Book of Sports Journalism*”(2006-07) Sports Publication, G-6,23/23B EMCA House, Ansari Road, Darya Ganj New Delhi
- Sita Ram , “*Text Book of Sports Journalism*”, —(2004) Friends Publication, 6, Mukerjee Tower, Dr. Mukerjee Nagar-Delhi
- Conrad .C. Fink, *Sports Wing*, Surjeet Publication, 7 Kholapur Road, Kamala Nagar, Delhi.
- Ahuja, B.N. and Chhabra, S.S. “*Principles and Techniques of Journalism*”, Surjeet Publication, 7 Kholapur Road, Kamala Nagar, Delhi
- Keval. J. Kumar, “*Mass Communication in India*”,2004, Jaico Publishing House-121, Mahatma Gandhi Road, Mumbai-400023.
- Agarwal,V.B AND Gupta, V.S *Handbook of Journalism and mass comm..* 2001, Concept publishing company

SPORTS SOCIOLOGY

Unit – 1: INTRODUCTION

1. Meaning, definition and nature of sports sociology.
2. Issues and controversies in sports sociology.
3. Relationship between sports and society.
4. Sports industry, sponsorship and entertainment.

Unit- 2 – SOCIAL SYSTEM

1. Definition of politics, policy, state and government.
2. Social System: family, society, community association, school and peer group.
3. Group interaction, competition and co-operation.
4. Role of sports in social environment and its influences on society.

Unit- 3- SPORTS AND CULTURE

1. Cultural influences on sports.
2. Influences of sports on culture and value.
3. Culture: pattern, traditions, rituals, habits, values and beliefs of a society.
4. Violence in Sports.

Unit-4- SOCIAL FACTORS CONCERNING SPORTS

1. Problem regarding participation in sports for women.
2. Status of women in sports.
3. Role of religion in sports development.
4. Social values and sports, Influence of spectators on sports.

References:

- Coaklay, J. (2004). *Sports in society*. McGraw hill publications.
- Delaney, T., & Madiagan, T. (2014). *The sociology of sports: an introduction, second edition*. Macfarland publications, North Carolina.
- Houlihan, B. (2005). *Sports and society: second edition*. Sage publications, New Delhi.
- Singh, A., et. al. (2008). *Physical Education*. Kaliyani publications, New Delhi.
- Singh, K., & Singh, I. (2000). *Sports sociology*. Friends publications, Delhi.
- Singh, Y. (2005). *Sociology in sports*. Sports publications, New Delhi.
- Sharma, S.R. (2004). *Sociological foundation in physical education and sports*. Friends publications, Delhi.
- Barric Houlihan, —*Sports and Society*”, SAGE Publication, (2005) 2nd edition, New Delhi.
- Singh, Yadwinder “*Sociology in Sports*”, (2005) Sports Publication, G-6, 23/23B EMCA House, Ansari Road, Darya Ganj New Delhi.
- Sharma, Sita Ram “*Sociological Foundation in Physical Education and Sports*”(2004) Friends Publication, 6, Mukerjee Tower, Dr. Mukerjee Nagar-Delhi
- Jay Coaklay, *Sports in Society*, (2004) McGraw Hill Publication.