

**Department of Physical Education and Sports  
Sciences**

**2012-13 onwards  
BACHELOR OF PHYSICAL EDUCATION [B.P.E.]**

**(3 Years Professional Programme)**

**General Rule – Examination**

The examination for the Degree of Bachelor of Physical Education (**B.P.E.**) shall consist of four parts.

Part – A Theory

Part – B Practical (Track and Field, Major games and other activities)

Part – C Teaching Practice

Part – D Specialization

**Duration:** The duration of the programme shall be three academic years with six semesters. The semester shall be from July to November and December to April in each academic year.

**Eligibility for Admission:**

- a) A pass in Higher Secondary (10 +2 scheme of examination or any other equivalent examination recognized by the University) for admission into the 3 years professional basic Degree B.P.E.
- b) Admission Test and Interview: For admission into the year B.P.E. programme, the test consists of

1. Physical fitness	40	Marks
2. Written Test	20	Marks
3. Games/Sports skill ability	40	Marks
Total	100	Marks

- c) Other conditions to be fulfilled by each candidate.

- i) Must have represented the School / District in Inter School / District Competition in any of the Games or Sports.
- ii) Must be medically fit and free from physical deformities and approved by the Medical Officer.
- iii) Should secure at least 50% of marks in the selection tests to be conducted by the Department of Physical Education and Sports Sciences as indicated below:

### **Physical Fitness, Written Test and Games / Sports Proficiency**

Men	Women	Marks
1. 100 m. Race (No crouch start)	1. 50 m. Race (No crouch start)	10
2. Sit-ups (bent knee)	2. Sit-ups (bent knee)	10
3. Vertical jump	3. Vertical jump	10
4. 800 m. Run	4. 600 m. Run	10
5. Written Test	5. Written Test	20
6. Games/Sports Proficiency (Any one game or one Track and one Field Event)	6. Games/Sports Proficiency (Any one game or one Track and one Field Event)	40
Total		100

Candidates should not have completed the age as on 1<sup>st</sup> July of the academic year indicated below:

**OC / BC / MBC - 30 YEARS**

**SC / ST - 32 YEARS**

However, the above age restriction is relaxed by two years for FC, BC and MBC candidates who have played inter district tournaments.

100 Candidates will be selected on the basis of merit, following the reservation of seats as prescribed by the Government of Tamil Nadu, from among those candidates who secure not less than 50% of marks in the selection tests.

#### **Eligibility for Admission to the Examination:**

Candidates to be admitted to the B.P.E. Degree Examination should produce, before the examination, a certificate that they have undergone the prescribed programme of study in this University and earned 80% of attendance.

Attendance at the Annual Leadership Training Camp is compulsory for all the candidates.

#### **Other Requirements \ Conditions:**

There shall be examinations at the end of each semester and a candidate will have to pass separately in Part 'A' – Theory, Part 'B' – Practical skills (Internal exam.), Part 'C' – Teaching Ability (only in B.P.E in Fourth Semester) and Part 'D' specialization (Coaching Ability / Specialization Practical examination at the end of Sixth Semester).

#### **Passing Requirements**

- a. To pass in theory subjects under Part 'A' of B.P.E each semester and in each academic year a candidate must secure at least 40% marks in each paper in the University Examination (each semester) and also obtain 40%

marks in aggregate allotted for the concerned papers including sessional marks. There is no minimum percentage for sessional theory marks.

- b. In practical skill in each semester under Part 'B' a candidate must secure a minimum aggregate of 50% and the examination under Part 'B' practical shall be of Internal Assessment only.
- c. In Teaching Ability (Practice of teaching) at the end II B.P.E, Fourth Semester under Part 'C' (Teaching Ability) University Examination, the minimum required for a pass shall be 50% and it shall consist of sessional grades and university examination marks.
- d. In the specialization under Part 'D' during Sixth Semester the minimum required shall be 50% in University Practical Examination and an aggregate of 50% marks including sessional grades in the specialization activity.

**Choice of Specialization in Games / Sports under Part 'D' during III B.P.E  
(Fifth and Sixth Semesters)**

Track and Field specialization is compulsory

Men & Women	
1. Badminton (Shuttle)	9. Ball Badminton
2. Basketball	10. Weight Lifting
3. Cricket	11. Netball
4. Football	
5. Handball	
6. Hockey	
7. Kabaddi and Kho-kho	
8. Volleyball	
<b>Track and Field</b> (one event from Track, Jumps and Throws)	
a) Track - Sprint, Relay and Hurdles	
b) Jumps – Polevault, High Jump, Triple Jump and Long Jump	
c) Throws – Hammer Throw, Shot Put, Discus Throw and Javelin Throw	

**Other Conditions:**

- i. If a candidate fails in Part 'A' (theory), Part 'C' (Teaching Ability), Part 'D' (Specialization) in B.P.E He/She will be required to pass the subsequent examination (Supplementary examination) only in the part /parts during the semester in which he/she had failed.
- ii. A candidate failing in session marks in Part 'B' (Practical skills) in B.P.E shall be allowed to take the Theory examinations in that Semester/Semesters. In all such cases they can appear supplementary examination in the practical skills concerned at a time fixed by the University/department and passes in it.
- ii. No minimum pass percentage is prescribed for session marks in "Teaching Ability" (Part 'C'- B.P.E II – Fourth Semester). However a candidate must obtain pass mark 50% in the university examination in "Teaching Ability" (Under Part 'C' and also obtain at least 50%.

- iii. The Division related to final results at the end of the sixth semester (Aggregate of all semester scores under Part 'A', 'B', 'C' & 'D') will be on the following basis.

1.PART 'A' (Theory – Aggregate for Six Semesters)

- a. Third Class – 40% and above but below 50%.
- b. Second Class – 50% and above but below 60%.
- c. First Class – 60% and above

2.PART 'B' (Practical)

- a. Second class – 50% and above but below 60 %
- b. First class – 60% and above

3.PART 'C' (Teaching Practice)

- a. Second class – 50% and above and below 60%
- b. First class – 60% and above

4.PART 'D'(Specialization) (Coaching Ability)

- a. Second class – 50% and above and below 60%
- b. First class – 60 % and above.

**SCHEME OF EXAMINATION**

**B.P.E. I**

Paper No.	Paper	External	Internal	Total
1.	2.	3.	4.	5.
I. Semester:				
11.	General Science	75	25	100
12.	History of Physical Education	75	25	100
13.	English-I	75	25	100
14.	PART – B Practical (Internal)		150	150
	Total			450

1.	2.	3.	4.	5.
II. Semester:				
21.	Recreation and Camping	75	25	100
22.	Basic and Systemic Anatomy	75	25	100
23.	English –II	75	25	100
24.	PART- B Practical (Internal)		150	150
	Total			450

**B.P.E II**

1.	2.	3.	4.	5.
III. Semester:				
31.	Safety Education and First Aid	75	25	100
32.	Physiology and Physiology of Exercise	75	25	100
33.	Methods in Physical Education	75	25	100
34.	PART – B Practical (Internal)		175	175
	Total			475

1.	2.	3.	4.	5.
<b>IV. Semester:</b>				
41.	Kinesiology	75	25	100
42.	Fundamental of Sports Psychology and Sociology	75	25	100
43.	Rules of Games and Sports and Officiating	75	25	100
44.	PART –B Practical (Internal)		175	175
45.	PART – C Teaching Ability (University to be conducted by one Internal and one External Examiner)	100	50	150
	Total			625

### **B.P.E III**

1.	2.	3.	4.	5.
<b>V. Semester:</b>				
51.	Foundations and Principles of Physical Education	75	25	100
52.	Organization and Administration of Physical Education	75	25	100
53.	Corrective Physical Education, Prevention and Care of Athletic Injuries	75	25	100
54.	PART – D Practical – Specialization (Internal)		150	150
	Total			450

1.	2.	3.	4.	5.
<b>VI. Semester:</b>				
61.	Health Education	75	25	100
62.	Test, Measurements and Elementary Statistics	75	25	100
63.	Planning and Construction of Sports Facilities	75	25	100
64.	PART – D Specialization Coaching Lesson (Teaching skill, Officiating and Final coaching lesson)Track and Field.	100*	100	200
	Total			500

\* Final coaching lesson – one External and one Internal Examiner.

### **PART 'B' - PRACTICALS**

#### **I – Semester**

##### **Practical - 150 Marks**

Indian Clubs, Dumb-bells, Kummi, Kollattum, Minor Games, Mass PT  
Ball badminton, Kabaddi  
Sprint, Long Jump.

#### **II – Semester**

##### **Practical - 150 Marks**

Wands, Pole Drill, Lazium, Pyramids, Marching.  
Badminton, Kho-kho.  
Relay, Triple Jump, Shotput.

### **III – Semester**

#### **Practical - 175 Marks**

Hoop Drill, Asanas, Surya Namaskar, Folk Dance, Gymnastics, Tumbling.  
Basketball, Football.  
High Jump, Javelin Throw, Discus Throw.

### **IV – Semester**

#### **Practical - 175 Marks**

Dands & Baitaks, Silambam, Weight Training.  
Cricket, Handball, Hockey.  
Hurdles, Pole Vault, Hammer Throw.

#### **PART ‘D’ – Specialization - Coaching Lesson**

### **V – Semester**

Specialization : Badminton & Ball badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi & Kho-kho, Volleyball & Track and Field.

### **VI – Semester**

Teaching Skills, Officiating and Coaching – 100 Marks (Internal).  
Final Coaching Lesson: University Examination – One External and Internal Examiner – 100 marks

## **SYLLABUS**

### **SEMESTER – I**

#### **PAPER - I**

### **11. GENERAL SCIENCE**

#### **MODULE - I**

Importance of Science – Various basic sciences, Value of knowledge required for physical education.

#### **Physics**

#### **Mechanics – General Properties of Matter**

Motion, Velocity, Projectile, Laws of motion, Force, Centrifugal force, Centripetal force, Gravity, Force of gravity, Center of Gravity, Equilibrium, Work, Power and Energy, Transformation of Energy, Friction, Levers Barometer – Boyle’s Law, Osmosis, Diffusion, Density, Specific gravity.

#### **MODULE – II**

#### **Heat:**

Effect of heat, Thermometer, specific heat and latent heat, (Their importance in daily life), transfer of heat, (Conduction, Convection, Radiation).

**Light:**

Nature of light, Reflection of light, at plane and curved surfaces, Lenses (Camera, Human eye, Astronomical Telescope and Compound Microscope)

**MODULE – III****Sound:**

Characteristics of sound, elementary idea of production and transmission of sound, loudness, pitch, hearing process.

**MODULE – IV****Chemistry**

Indestructibility of matter, Atom, Molecule, Element compound and Mixture. Oxygen, Oxidation and Reduction, Acids, Bases, Salts, Solubility, Crystallization, Hydrogen, water, Hard and soft water, Carbon, Carbon dioxide, Nitrogen, Ammonia, use of nitrates, chlorine.

Introduction to organic chemistry, Carbohydrates, Proteins, Amino acids, fats.

**MODULE - V****Biology**

Living organism, cell, protoplasm, cell division, Cellular structure of plants and Animals, Reproduction in plants and Animals, An elementary study, Bacteria and virus, Inter dependence of plants and Animals, Evolution and Heredity.

**Reference Books:**

1. Physics by W.L. Whitely Published by University Tutorial Press Ltd., Clifton House, Eouch Road, London, N.W.I. 1959 Sh.1961.
2. Chemistry for Matriculation By G.H. Baily and H.W. Bonsor, University Tutorial press, London 1956.
3. Biology made Simple by E.P. Hanssure, Publishers Dudly and Co. Inc.Garden City, New York, 1956.

**PAPER – II****HISTORY OF PHYSICAL EDUCATION****MODULE – I**

Meaning and process of education – Definition of Physical Education. The need and importance of physical education.

Physical education in ancient India – Vedic period – Epic period – Buddhist period – development of indigenous activities especially Yogic physical exercises.

**MODULE – II**

Physical Education in the city states of Sparta and Athens.

Physical Education in ancient Rome, Physical and moral education – The circus Gladiatorial combats.

### **MODULE – III**

Contribution to the growth of Physical Education by leaders and movements in the following countries.

Germany (Johan Basedow, JohnFrederic, Guts Muths Fredrich Ludwing Jahn Adolph Species Phylanthroponium, Turnverein Movement and the Barschen Schaftu, Sweedon (per Henric Ling) Denmark (Frannz Nachtegal, Nieis Burke Swedish Medical Gymnastic).

Great Britain (Archibald Maclaren, British Games and Sports, Public play ground and their coaching system) U.S. (Dr. Dio Lewis, Dr. Dudley Alen Sargent). Toe oTurnverine Movement in erica Training of Physical Education teachers. (YMCA, and its Contributions). USSR, Physical Education in schools, the Spartukiad, Japan (Before and after World War II Famous Sports of Japan).

### **MODULE – IV**

Modern Olympic games.

Survey of Modern Physical Education in India.

- a. Contribution of Akhadas and Vyayamshalas.
- b. The British influence – Gymkhana, Sports Clubs, Physical Training.
- c. Y.M.C.A. and its contributions.
- d. Teacher Training Institutions in Physical Education.

### **MODULE – V**

Survey of Modern Physical Education in India (Continue)

- a. Indian Olympic Associations, National Sports Federations and State Associations.
- b. Professional organizations – All India Association of Colleges of Physical Education, India Association of Teachers of Health, Physical Education and Recreation, Indian National Recreation Association.
- c. Youth Welfare Programmes – N.C.C., N.S.S., N.S.O., Scouting and Guiding, Youth Hostels, Youth Festivals, Camping, Mountaineering.
- d. National fitness corps, programme in Secondary Education.
- e. Schemes for promotion of Physical education Preparation of Popular Literature. Research in Health, National Physical Fitness Programme, Arjuna Awards, NA and State Councils of Sports, National Institute of Sports, Regional Coaching Centers.

### **Reference Books:**

1. Khan, Eraj Ahmed, History of Physical Education, Patna Scientific Book Co.
2. Leonard, Fred Eugene and Affieck, G.Orge, B. Guide to the History of Physical Education, Philadelphia Leo and Fabiger, 1962.
3. Majumder, D.C. Encyclopaedia of India Physical Culture, Baroda, Good Companions, 1952.
4. Rice Emmett, A. Hutchinson John L. and Lee Marbal, A brief History of Physical Education, New York: The Ronald Press Co., 1960.
5. Rajagopalan, K.A. Brief Histroy of Physical Education in India, Delhi Army Publishers, 1962.
6. Warkharkkar, D.G. Manual of Physical Education, Bombay, Pearl Publishers Pvt. Ltd.



## **PAPER – III**

### **ENGLISH – I**

#### **MODULE - I**

Oral (common for B.P.E I & II) – Speech and pronunciation with emphasis on (a) Intonation (b) Rhythm (c) Stress (d) Phonetics (e) Fluency. No prescribed examination shall be held in this but special stress on these points have to be given in regular teaching classes.

#### **MODULE – II**

A text-book shall be prescribed for extensive reading. It may be an original English novel or a collection of short stories.

#### **MODULE – III**

- a. To write an essay consisting of four hundred words on an unfamiliar topic and the nature and scope of the choices of topics will be as follows (i) Reflective (ii) Narrative (iii) Imaginative (iv) Professional.
- b. To write a letter and the nature and scope will be as follows. (i) Personal letters (ii) Business letters (iii) Applications (iv) Circulatory letters (v) Invitations (formal and informal).

**MODULE - IV** - General English Composition. This is intended to train the students so as to acquire skills in the following areas:

- c. To read an unfamiliar passage in order to prepare a resume of the core ideas maintaining logical coherence.

**MODULE – V** - General English Composition. This is intended to train the students so as to acquire skills in the following areas:

- d. To read an unfamiliar passage followed by a set of questions to be answered from an apprehension of the passage.

#### **Reference Books:**

1. Sarah Freeman, Written Communication in English New Delhi, Orient Longman, 1971.
2. English Communication, Technical Teachers, Training Institute, Madras.

The following textbooks have been prescribed

Extensive Reading: Rudyard Kipling, Kim. 1901 rpt, Madras. Macmillan India Limited, 1986.

#### **PATTERN OF THE QUESTION PAPERS**

The question paper will consist of five parts and all the five parts will have to be attempted. Each part shall have liberal choices of questions. Each question carries fifteen marks and the total marks for the paper will be seventy five. In addition, twenty five marks will be allotted towards internal assessment by the teachers. The duration of the paper will be three hours.

- Part - I** An essay out of three will have to be written based on the text – book prescribed for extensive reading.
- Part - II** A general essay on an unfamiliar topic will have to be written out of three choices.
- Part - III** A passage will be given for comprehension and a few questions will have to be answered based on the reading of the passage.
- Part - IV** One question will have to be attempted out of three letter – writing choices.
- Part - V** A passage will be given for intensive reading so as to make a resume of it.

## **SEMESTER - II**

### **PAPER - IV**

#### **21. RECREATION AND CAMPING**

##### **Recreation**

###### **MODULE-I**

Meaning and definition of recreation.  
Scope and significance of recreation.

###### **MODULE- II**

Agencies providing recreation. (Municipal Agencies, public, private, voluntary, youth serving Agencies.)  
Rural, Urban community and industrial recreation.

###### **MODULE-III**

Types of recreational activities; Indoor and outdoor games, leadership in recreation.

##### **Camping:**

###### **MODULE-IV**

Scope and significance of camping.  
Types of camps, selection and lay out of camp sites.

###### **MODULE-V**

Organization and administration of camps (camp programme and activities).  
Leadership and supervision.  
Evaluation of camp work.

##### **Reference Books:**

1. Introduction to Community Recreation, by George D. Butler.
2. Administration of Public Recreation, by George, H. Jetle.
3. Principles of Recreation, by John L. Hutchinson.
4. Recreation Leadership, H. Dan Corbin.
5. Camping and Education, by Dr. L.K. Govindarajulu and Mrs. Joseph.

6. Camping, by David Roberty, W & D Foybhri,
7. Camp counseling, by Michell and Crawford, W.B. Saunders co.,
8. Year Book of camping, by Michael Bright.

## PAPER – V

### 22. BASIC AND SYSTEMIC ANATOMY

#### MODULE-I

Introduction: What is Anatomy? Various terms used in Anatomical position, Need and Importance of Anatomy for the Students of Physical Education.

Definition of cell tissue, organ and system. Microscopic structure of cell, Tissues – Classification, structure and functions of various types of tissues.

#### MODULE-II

Skeletal system: Composition, Microscopic and Macroscopic structure of bones, classification and functions of bones, general features of scapula, radius, ulna, humerus, hip bone, Femur, Tibia, Typical Rib, Typical Vertebra and Bones of skull.

#### MODULE-III

Joints: Definition and classification of joints. Anatomical structure of synovial joints, terminology of movements around a joint.

Muscles: Structural and functional classification of muscles, general characteristics of muscles (Elasticity contractibility and irritability)

#### MODULE-IV

Basic knowledge of the following systems.

- a. Cardio-Vascular system including structure of heart, Artery, vein and capillary.
- b. Respiratory system with special reference to lungs, bronchial tree and muscles of respiration mechanism of respiration.

#### MODULE-V

Basic knowledge of the following systems:

- a. Digestive system: Anatomical structure and function of various parts of Alimentary canal, liver, pancreas, gall bladder etc.
- b. Nervous system, Structure of brain, spinal cord and peripheral nerve, reflex arc and reflexes. Brief account of urinary system, structure of kidney and urinary tract Endocrine glands, Anatomical structure of Pituitary, thyroid, pancreas, adrenals and glands.

#### Reference Books:

1. Anderson, T.Mc. Ierg Human Kinetics and Aealysing Body Movement. London, William Heinman Medical Books Ltd., 1961.
2. Davis, D.V. Wtay's Anatomy, London, Longmans Green and Co. Ltd. 1967.
3. Davel, Ellen Neil Kinesiology. The anatomy of Motion.
4. Pearce, Evelyn B. Anatomy and Physiology for Nurses, London Faber and Faber Ltd., 1962.

5. Pearce, J.W. Anatomy for Students and Teachers of Physical Education, London, Edward Arnold and Co., 1959.

## **PAPER – VI**

### **23. ENGLISH – II**

#### **MODULE-I**

A text-book shall be prescribed for intensive reading. It will be a collection of essays written by native and Indian writers.

#### **MODULE-II**

General English Composition – This is intended to train the students so as to acquire skills in the following areas.

To learn to detect common errors in English from a set of general statements or twisted sentences from the textbook intensive reading.

#### **MODULE-III**

General English Composition:

- a. To learn to acquire from the text book the nuances in the meanings of various words, which look alike spelling wise, or pronunciation wise for framing new sentence.
- b. To learn to suggest a single word for a group of words in a sentence from the book for intensive reading to develop vocabulary.

#### **MODULE-IV**

English Grammar: Remedial teaching aimed at improving a student's deficiencies in the following areas of English Grammar shall be undertaken. a) Articles b) Prepositions. Phrasal verbs and Indirect Speeches d) Transformation of sentences.

#### **MODULE-V**

English Grammar:

- a) Simple, compound and complex sentences.
- b) Interchange of the Degrees of Comparison.
- c) Interchange of Active and passive voices.
- d) Affirmative, negative, interrogative, explanatory and assertive sentences.

Infinitives, Participles and Gerunds.

#### **Reference Books:**

1. A.J. Thomas and A.V. Martinet, A. Practical English Grammar, New Delhi: oxford University Press, 1968.
2. F.G. French, Common Errors in English OUP.
3. F.T. Wood, A Remedial English Grammar for Foreign Students – Macmillan Education Limited.

Extensive Reading: M.O. Khan, Ed. Treasures of English Prose, New Delhi: S.Chand & Company (Pvt.) Limited 1988,

#### **Pattern of the question paper**

The question paper will consist of five parts and all the five parts will have to be attempted. Each part shall have liberal choice of questions. Each question

carries fifteen marks and the total marks for the paper will be seventy-five. In addition, twenty five marks will be allotted for internal assessment by the teachers. The duration of the paper will be three hours.

- Part I** Five passages out of ten to be annotated from the text-book prescribed for intensive reading.
- Part II** An essay out of three choices will have to be written chosen from among the lesson of the book for intensive reading.
- Part III** An essay out of three choices will have to be written chosen from among the lessons of the book for intensive reading.
- Part IV** General English composition and Grammar. Four questions will have to be answered and there will be liberal choices.
- Part V** General English composition and Grammar, Four questions will have to be answered and there will be liberal choices.

### **ONLY FIRST TEN LESSONS**

## **SEMESTER – III**

### **PAPER –VII**

## **31. SAFETY EDUCATION AND FIRST AID**

### **MODULE – I**

#### **Safety Education**

Definition – Factors affecting safety

The concept of Accidents and safety. Psychological principle concerned with accidents and promotion of safety consciousness. The need for teaching principles of safety education.

Safety at Home-environment and structure, Electrical connections. Bathroom and lavatory, storing articles, kitchen and fire place, storing medicines, principles of movements in daily living.

### **MODULE – II**

Safety at school-structure and environment, precautionary and emergency equipments. collection of information (addresses of parents, hospitals and Doctors, police, fire station, ambulance service).

Safety in physical education and sports – principles of safety with respect to buildings and play fields. Principles of safety with respect to equipments, dress etc. Principles of safety with respect to organization of classes, demonstration and matches. Policies and practices to prevent accidents and rendering first aid and treatment. Accident reporting and maintenance of records. Safety considerations with special reference to specific games in the school and college curriculum.

### **MODULE – III**

Safety on roads, camps, picnics and tours. Safety in water, fire, floods, hurricane, thunder and lightening and air raids.

## **MODULE – IV and V**

### **First Aid :**

This is a functional – practical – oriented course.

The topics covered in the First Aid Manual of the St. John Ambulance Association, New Delhi will be taught.

### **Reference Books:**

1. Safe at School, (Education Pamphlet Number 53 London, Her Majesty's stationary office)
2. School safety Policies, Washington D.C. American Association for Health, Physical Education and Recreation.
3. Stack, Harbert, J. Cuke Elkoffi, Education for safe Living, Englewood Cliffs, New Jersey, Prentice Hall Inc.
4. Florio. A.A. & Stafford G.T. Safety Education, New York, McGraw Hill Book Co.,
5. Evans. A. William, Everyday Safety Chicago: Lyons and Carnahan.

### **Text Books:**

1. Royappa Dr. Daisy Joseph & L.K. Govindarajulu, Safety Education.
2. First Aid to the Injured – New Delhi, St,John Ambulance Association.
3. Dr. V. Gopinath. Dr. G. Ravindran & Dr. K. Sivakumar ,Safety Education.

## **PAPER – VIII**

### **32. PHYSIOLOGY AND PHYSIOLOGY OF EXERCISE**

#### **MODULE – I**

##### **Systems:**

Study of the following systems and processes with a view to understand how the normal human machinery works and how it makes an effort to adjust itself in health and under stress.

##### **The Cardio Vascular System:**

- a. The cardiac cycle.
- b. Pumping action of the heart and its regulation.
- c. Blood pressure, its maintenance and regulation.
- d. Blood flow and its regulation according to needs.
- e. The cardiac out-put and its regulation.

#### **MODULE – II**

##### **Blood and Lymph:**

- a. Composition and functions of blood and lymph.
- b. Clotting of blood.

##### **The Excretory System:**

- a. Excretion of water from the body.
- b. Function of kidney and skin.

### **MODULE – III**

#### **Respiratory System:**

- a. Mechanism of respiration.
- b. Pulmonary ventilation and its regulation.
- c. Second wind, oxygen debt.

#### **Gastro Intestinal System:**

- a. Gastro intestinal movements
- b. Secretion and function of the digestive juices.
- c. Functions of liver.
- d. Absorption of food.

### **MODULE – IV**

#### **Metabolism and Temperature Regulation:**

- a. General metabolism.
- b. Elementary idea about metabolism of proteins, carbohydrates and fats.

#### **Nervous System:**

- a. Functions of the important of the nervous system, spinal cord, medulla oblongata, cerebrum etc.
- b. Autonomic nervous system and its function.
- c. Physiological mechanism governing posture and equilibrium.

### **MODULE – V**

#### **Sensory System:**

- a. General sensation like coetaneous and kinesthetic sensations.
- b. Special sensation-Vision distance and peripheral vision, Hearing sense of balance and rotation, smell and taste.

#### **Reference Books:**

1. Guyton, A.C. Function of the Human Body – London: W.B. Saunders Company (latest ed).
2. Srivastava etc. Text book of Practical Physiology, Calcutta: Scientific Book Agency
3. Morehouse and Miller, Physiology of Exercise St.Louis: The C.V. Mosby Company (Latest. ed).
4. Karpovich and Sinning, Physiology of Muscular Activity , London. W.B. Saunders Company, 1955.

## **PAPER – IX**

### **33. METHODS IN PHYSICAL EDUCATION**

#### **MODULE – I**

Meaning of the Term Method and the factors to be considered in determining the method of teaching learning process and conditions of learning.

Age and sex characteristics.

- a. Pre-School, Primary School, Middle School, Higher Secondary School and College level
- b. Sex differences among boys and girl
- c. Activity planning according to age and sex characteristics.
- d. Physiological, Psychological and sociological needs.

#### **MODULE – II**

Methods of teaching (with special reference to different kinds of physical activities).

- a. Calisthenics
- b. Gymnastics.
- c. Minor games.
- d. Major games.
- e. Rhythmic activities.

Principles of teaching:

- a. Simple to complex
  - b. Part to whole
  - c. Learning by doing
  - d. Intrinsic and Extrinsic Motivation
  - e. Frequency and duration of instruction
  - f. Recognition
  - g. Methods of Teaching Physical activities.
- I. Presentation technique and steps in the way of presentation.
  - II. Steps in teaching motor skills, establishing concept-providing experience with whole and parts, analysis of performance etc.

#### **MODULE – III**

Command and class management.

- a. Types of commands – Situations when used different commands.
- b. Types of formation.
- c. Class management – Principles for good class management.

Lesson planning: Types of lesson plans and objectives – values of lesson plans.

- a. Physical Education Lesson – Various parts of lesson. Introductory, Preparatory, skill part, group activity and concluding part.
- b. Coaching lesson – various parts of lesson, warming – up, Physical (General and Special) Technical and Tactical preparation.

Tournaments – Meaning and type of tournaments.



- i. Knock out or Elimination tournaments.
- ii. League or round robin Tournaments.
- iii. Combination Tournaments.
- iv. Challenge Tournaments - Different types to be covered under each category.

#### **MODULE – IV**

Organization and conduct of competition in

- a. Individual and Dual Sports, Tack and Field, Gymnastics, Weight Lifting and Best Physique, Wrestling, Swimming and Diving. Badminton, Table Tennis and Tennis.
- b. Team sports – Football, Hockey, Volleyball, Basketball, Kabaddi etc.
- c. Group Competition.

Marking of play grounds as practical projects, Track and field, play fields of football, Hockey, Kabaddi, Volleyball, Basketball, Cricket, Softball, Badminton, Kho-Kho.

Ways and means of improvisation of equipment. Publicity – Meaning and important methods of preparation for:

- i. Demonstration
- ii. Play Day
- iii. Exhibition

#### **MODULE – V**

Audio-visual Aids in Physical Education.

- i. Values and uses of Audio-visual Aids
- ii. Criteria for selecting the aids.
- iii. Steps to be followed in using aids.
- iv. Suggestions for the use of selected types of aids.
  1. Black-boards
  2. Charts and Diagrams
  3. Models
  4. Bulletin Boards
  5. Magnetic Boards
  6. Skill and Motion picture
  7. Projected Devices
  8. Radio and Television
  9. Books

Evaluation:

- i. Need and importance of evaluation.
- ii. Basic method of evaluation – observation, Interview, Tests and measurements, self evaluation, Co-operative evaluation by pupil and teacher.

#### **Reference Books:**

1. Knapp, Clyde and Hagmanl, E.P. Teaching Methods for physical Education: New York, Mc. Graw Hill Book Co., Inc., 1948.
2. Kozman, B.Cassidy Rosalind and Jackson, C.O. Methods in Physical Education: London W.B. Saunders C., 1960.
3. Thirunarayanan, C. Hariharan, S. Methods in Physical Education: Karaikudi, South India Press, 1962.

## **SEMESTER – IV**

### **PAPER – X**

#### **41. KINESIOLOGY**

##### **MODULE – I**

Definition, brief history, aims and objectives, contribution of Aristotles, Leonard Da Vinci, G.A. Borelli, Woder Brothers, Marey, Breown and Fisher, Duchane, Role of Kinesiology in Physical Education and Physical Medicine.

Functions and classifications of human skeleton Fundamental concepts. Center of Gravity, Line of gravity, starting positions. Muscular Analysis of Fundamental Movements of joints of the body.

##### **MODULE – II**

Structure and Functions of Shoulder Girdle, shoulder joint, Elbow Joint, Hip Joint, Knee joint, Ankle joint and foot, head, neck and trunk.

##### **MODULE – III**

Muscular Analysis of fundamental skills like walking, running, jumping, throwing, catching, striking and hanging.

Physiology of human motion. Muscular function and development, muscular contraction and graduation of contraction (All or None Law)

##### **MODULE – IV**

Mechanics' of human Motion in Sports and games.

Definition and Principles of application derived from physics, Mass, weight, force, movement of force, equilibrium, lever, motion-linear and rotary, projectile, friction, law of rebound, speed, velocity, momentum, Ballistic and continuous tension movements, effects of spin.

##### **MODULE – V**

Characteristics of skill leaning.

Selection and evaluation of exercise for developmental conditioning and corrective purpose.

Tools of Investigations.

Brief understanding of the use of stimulus electric intervention, electromyography and photographic techniques.

##### **Reference Book:**

1. Brower, Marion R. Efficiency of Human Movement – Philadelphia: W.B. Saunders Co., 1966.
2. Buan John, W. Scientific Principles of Coaching, Englewood Cliffs, N.J. Prentice Hall Inc., 1966.

3. Cooper, John M. and R.B. Glasscow, Kinesiology St, Louis: C.V. Mosby Co., 1963.
4. Duvall Elien Neal. Kinesiology, Englewood Cliffs, N.J. Prentice Hall Inc., 1956.
5. Rasch Philip J. and R.K. Burke, Kinesiology and Applied Anatomy, Philadelphia, Ea and Fabiger 1967.
6. Scott, M. Glays-Analysis of Human Motion, New York.
7. Wells, Katherine, P. Kinesiology, Philadelphia W.B. Saunders Co., 1966.

## **PAPER – XI**

### **42. FUNDAMENTALS OF SPORTS PSYCHOLOGY AND SOCIOLOGY**

#### **Sports Psychology**

##### **MODULE – I**

Meaning and importance of psychology.  
Nature, relationship of sports with psychology, scope of sports psychology.

##### **MODULE – II**

Brief account of the development of self-influence of heredity and environment.  
Motivation extrinsic and intrinsic, motivations motive incentive, stimuli,  
motivation for learning and performance.

##### **MODULE – III**

Problems of achievement and adjustment among individuals in learning –  
influence of intelligence.

##### **MODULE – IV**

#### **Sports Sociology**

Nature and scope of sociology, relationship of sociology with other social  
sciences.  
Foundations of physical education – sociological aspect.  
Culture civilization and culture relationship and socialization.

##### **MODULE – V**

Socialization, socialization institutions, sports and socialization.  
Social stratification, Sports and social stratification.

##### **Reference Books:**

1. M.C. Iyer R.M. Society, London, Macmillan and company.
2. Jay J. Coakley, Sports in society issues and controversies St.. Louis, Mosby College Publishing Co., 1986.
3. Edwards, Sociology of Sports – III Iliinois Dorsey Press, 1986.
4. N.I. Ponomoryou, Sports and Society – Moscow: Progress Publisher, 1981.
5. John D. Lauther, Sports Psychology – Prentice Hall Inc., Englewood Cliffs,
6. Bryant J. Gatty, “Psychology – in contemporary sports” , Englewood Cliffs, New Jersey.1973.

7. Robert N. Singer, "Coaching Athletics and Psychology", McGraw Hill Book Co, New York.
8. H.T.A. Whiting K. Korman, L.B. Henry and M.G. Jones, "Personality and Performance in Physical Education and Sports", - Henry Kimton Publishers, London 1973.

## **PAPER – XII**

### **43. RULES OF GAMES AND SPORTS AND OFFICIATING**

#### **MODULE – I**

History and development of the following games: Badminton & Ball badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi and Kho-kho, Volleyball.

Ground Measurements and Markings of the following games: Badminton & Ball badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi and Kho-kho, Volleyball.

#### **MODULE – II**

Rules and Interpretations of the following games: Badminton & Ball badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi and Kho-kho, Volleyball.

#### **MODULE – III**

Duties of officials, system of officiating and official signals of the following games; Badminton & Ball badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi and Kho-kho, Volleyball.

#### **MODULE – IV**

Various system of play in the following games: Hockey, Football, Basketball, Volleyball and Cricket.

Planning, Construction and marking of 200 and 400 Meters track, computation of Stagger distance Marking of Relay race, Hurdles etc.

#### **MODULE – V**

Marking throwing sectors of shot-put, discuss, hammer, and javelin, conduct of Decathlon, Heptathlon, Marathon, Cross Country Race and steeple.

Rules and interpretation of Track and Field events. Duties of various officials in Track and Field.

#### **Reference Books:**

1. Federation rules books of above mentioned games.
2. AAFI Rules of Book of Track and Field.
3. R.L. Anand, Play Field Manual, Patiala, NIS Publication, 1990.
4. H.C. Buck, Rules of Games and Sports, Madras. Y.M.C.A. Publication, Latest Edition.

## **SEMESTER – V**

### **PAPER – XIII**

#### **51. FOUNDATIONS AND PRINCIPLES OF PHYSICAL EDUCATION**

##### **MODULE – I**

###### **General:**

Definition of Terms: Physical Training, Physical culture and physical education coaching, Meaning and scope of Education and Physical Education.

- a. Aims and objectives of Physical Education and its contribution to Education.
- b. Objectives of Physical Education in
  - i. Primary, Elementary / Higher Education
  - ii. Secondary and
  - iii. College Education

##### **MODULE – II**

Physical Education – As an Art and Science. Its nature and sources of principles – application of those principles.

##### **MODULE – III**

###### **Biological Principles:**

- a. Heredity and Environment.
- b. Principles governing physical and motor growth and development.
- c. Differences among males and females.
- d. Chronological – anatomical – mental and physiological ages in individuals.
- e. Effects of Exercise – under – load, normal – load, overload and create load, training and physical fitness.
- f. Body types (soma to types).

###### **Psychological Principle:**

- a. Notions about mind and body, psycho-physical units of man.
- b. Impulses, drives and habits.
- c. Theories of learning (Traditional and modern)
- d. The learning process:
  1. Laws of learning (Principle of learning)
  2. Transfer of Training / Learning.
  3. Primary, Associate and concomitant learning
  4. The learning curve
  5. Factors and conditions which promote learning

##### **MODULE – IV**

###### **Sociological Principles:**

- a. The nature of man, human nature and human needs.
- b. Social institutions and their influence of human behaviour.
- c. Games and sports as man's cultural heritage.

## **MODULE – V**

- a. Development of social unity, physical education as a factor in socialization of individuals and groups.
- b. Role of Physical Education in National Integration.
- c. Theories of play
- d. Role of Physical Education in the context of social problems – Youth problems, Mental health, unemployment and automation.

### **Reference Books:**

1. Bucher, Charles A. Foundations of Physical Education St. Louis. The C.V. Mosby Com., 1986.
2. Nixon Eugene, E. and Cozen W. An Introduction to Physical Education – Philadelphia, London, W.B. Saunders Co., 1986.
3. Cherteuffer, Delbert: Physical Education, Harper and Brothers Publishers, New York, 1970.
4. Sharman Jackson, R. Introduction to Physical Education, New York, A.S. Barnes and Company, 1964.
5. Williams Jesse Feiring, The Principles Physical Education-Philadelphia, W.B. Saunders Co. Ltd.

## **PAPER – XIV**

### **52. ORGANISATION AND ADMINISTRATION OF PHYSICAL EDUCATION**

#### **MODULE – I**

Meaning – Nature and scope of organization and administration, principles of organization and administration. Scheme of organization.

#### **MODULE – II**

Facilities:

- a. Play field location, standard, preparation, layout and Maintenance.
- b. Gymnasium – construction, factors, care and maintenance and allied facilities.
- c. Swimming pool – construction, dimension, filtration and supervision of swimming pool.

Equipments in Physical Education:

Need and importance, lists of equipments, suggested type of equipments, criteria for selection procedure of purchase, care and maintenance, store-keeping routine care repairs, disposal etc.

#### **MODULE – III**

Staff and Leadership:

Importance of qualified teacher, qualifications of good teacher, values, staff co-operation, student leadership, values of student of leadership.

Selection and training of student leaders, role of student leaders, recognition of student leaders.

Time – Table:

Physical Education classes, factors affecting time-table, required periods, instruction period, practice period, games period, participation periods.

#### **MODULE – IV**

Programme of Activities:

- a. Intramurals - Importance of organizing Intramurals, Units of competition, activities, points systems role, awards and incentives for participation.
- b. Extra murals: Educational emphasis, Civil practices, extent of participation, Selection conditioning of teams, Training team and management, sports tours.

Office Managements:

Setting up and management of office correspondence records and reports filing, relationship with superior officer and assistants, parents, pupils.

#### **Financial Budget:**

Physical Education Budget – budget making income and expenditure, accounting petty cash, fund imp rest.

#### **MODULE – V**

Public Relation:

Definition – Need of Public relations in physical education. Principles of public relations in physical education. Techniques and Media of Relation with the public, parents, pupils and other agencies.

Evaluation:

Need and importance – Method of evaluation in terms of objectives. Detection of deficiencies, examination in physical education - follow up action for improvement.

#### **Reference Books:**

1. Voltmer and Esslinger – Organization and Administration, Times of India Press, Bombay 1964.
2. P.M. Joseph, Organization of Physical Education O.S: A.T.I.P.E. Kaudivali (Bombay), 1956.
3. Hughes and French – Administration of Physical Education. Ronald Press Co., New York, 1954.
4. Forsyth and Duncan, Administration of Physical Education, Prentice Hall, New York 1951.
5. Bucher, Administration of School Health and Physical Education Programmes, C.V. Mosby Co., St. Louis. 1967.
6. J.P. Thomas, Organization of Physical Education.

7. Bennett, Bruce L. Mapwell L. Howell and Vriel Simri Comparative Physical Education and Sports Lea and Fabiger Pub, Philadelphia, 1983.

### **PAPER – XV**

## **53. CORRECTIVE PHYSICAL EDUCATION, PREVENTION AND CARE OF ATHLETIC INJURIES**

### **MODULE – I**

Corrective Physical Education, its definition and objective.

- a. Posture and body Mechanics – Standards of standing posture, values of good posture, drawback and causes of poor posture.
- b. Postural Tests – Examination of the spine. New York State posture Rating Chart Test, organization of special classes for postural correction.
- c. Some common deviations in posture – normal curvature of the spine and its utility, Hypnosis, lordships, kypholordosis, flat back, scoliosis (C and S curve, functional and structural round shoulders). Knock Knees, bowlegs, flat foot, causes for these deviations and treatment including exercise.

### **MODULE – II**

Therapeutic Exercise:

- a. Definition and scope.
- b. Practical instruction about classification and effective use of the aseptic movements.
  - i. The passive movements (Relaxed, forced and passive stretching).
  - ii. The active movements (Free, Resisted)
  - iii. Types of corrections in resisted movement, concentric, Eccentric (I isotonic) and Static (I somatic).
- c. The Physiological classification of movements:
  - I. Voluntary movements.
  - II. Involuntary movements
    - a. Associated movements
    - b. Reflex movements
    - c. Peristaltic movements
    - d. The movements of the heart.
  - III. Physiological effects of passive and Active movements.
  - IV. Purpose and effective use of various fundamental positions.
    - i. Lying ii. Sitting iii. Kneeling iv. Standing v. Hanging
  - V. Application of the Therapeutic Exercises:
    - a) Free mobility Exercises:
    - b) The foot, ankle and knee joints.
    - c) The finger, wrist, elbow radio-lunar joints.
    - d) The trunk and shoulder joints



- VI. The formation of a corrective gymnastic class and the points to be observed.

### **MODULE – III**

#### Massage:

- a. A brief history of massage and remedial exercises.
- b. Muscle relaxation as an aid to massage.
- c. Points to be considered in giving massage.
- d. Physiological effects of massage.
- e. Classification of the manipulations used in massage and their specific uses on the Human body.
  - a. Stroking manipulation
    - i. Effleurage
    - ii. Stroking
  - b. Pressure manipulation
    - i. Kneading.
    - ii. Petrissage.
    - iii. Friction.
  - c. Percussion Manipulation (Tapotment)
    - i. Hacking
    - ii. Clapping.
    - iii. Beating.
    - iv. Pounding.
  - d. Shaking Manipulation
    - i. Deep Massage according to Dr. Cyrix.
    - ii. Contra-indication of Massage.
    - iii. Techniques of massage for the limbs and back and some modifications
    - iv. Techniques of massage for the neck, chest, abdomen head and face and modification.

### **MODULE – IV**

#### Athletic Injuries and Treatment:

- A- Principles pertaining to the prevention of injuries.
- a. Relating to the maintenance of balance and prevention of falls.
  - b. Relating to the range of movement.
  - c. Relating to the intensity and quality of muscular exercise.
  - d. Relating to the body segments and weight-bearing joints.
  - e. Relating to the reception of one's own weight.
  - f. Relating to receiving the impact of external force.

### **MODULE – V**

#### **Common Athletic injuries and their Treatment:**

- i. Sprains
- ii. Strains.
- iii. Contusions.

- iv. Abrasion, Principles of applying Heat /Cold, Ultra-Violet rays, infra-red rays, contrast bath, ultrasonic etc.

**Reference Books:**

1. J.I.W.B. Saunders and Co., London 1965. Corrective Physical Education, Rathborne
2. Naro Faber and Faber ltd., Manual of Massage and Movement, Prof.E.M.
3. Education, by Williams Mareiam and Catherine Worthingham, W.B. Saunders and Co., 1965 Therapeutic Exercise for Body Alignment and
4. & A. Churchill Ltd., 1951. Massage and Medical Gymnastics, M.V. Lacey J
5. Stafford and Kelly, New York. Preventive and Corrective Physical Education, The Ronald Press,1968.
6. New York, Appleton Century Crofts, 1954. Test and measurements., Mc. Cloy and Yongg,

**SEMESTER – VI**

**PAPER – XVI**

**61. HEALTH EDUCATION**

**MODULE – I**

Definition of Health and description of its component.  
Positive Health, Spectrum of Health.  
Ecology of Health, Determinants of Health.  
Public Health Education in attainment of Health Goals, Indicators of Health.  
Organization and administrative set up of Health Services in India.  
Health through ages.

**MODULE – II**

Definition of Health Education, Role of Health Education, Scope and Principles of Health Education.  
Communication in Health Education.  
Practice Planning and Evaluation in Health /education programmes.  
Effect of Heredity, Genetics in Health.  
Brief account of Health problems in India.

**MODULE – III**

Relationship of Agent, Host and Environment in Production of a disease stimulus.  
Dynamic and Disease Transmission, Mode of Disease Transmission, Immunity and Susceptible Host.  
Personal Hygiene, care of skin, mouth, nails, clothing, bathing etc.  
Importance of rest, sleep and exercise.  
School Health programme:  
a. History  
b. School Health problems.  
c. Appraisal aspect including morning health inspection.  
d. Brief introduction of safety education. First Aid Emergency care.  
e. Remedial Measures.

- f. Healthful School Living.
- g. School Health Administration.
- h. Mental Health and Child Placement.
- i. School Health Records.
- j. Mid-day school – meal programme.

#### **MODULE – IV**

National Family Welfare Programme – Need and importance, Role of Health Educator, Sex Education.

Nutrition:

- a. Classification of foods.
- b. Description of proximate principles.
- c. Role of various vitamins and minerals
- d. Balance diet for Indian players and school children.
- e. Assessment of Nutritional status Malnutrition, Food additives. Adulteration of Food.

#### **MODULE – V**

Health of the community-Brief account of Housing, Water supply,. Milk and food hygiene, sewage and refuse disposal, Swimming pool sanitation.

Brief description of maternal and child health.

Role of Government in Health Education.

Planning, Evaluation, Administration and Organization of Health Education in India.

#### **Reference Books:**

1. Health Education by Moss and others (National Education Association of U.T.A.) Latest Edition.
2. Turner et.al., School Health and Health Education, The C.V. Moosby Co., St., Louis 1970.
3. Nemir A. The School Health Education, Harper and Brothers, New York.
4. Oberteufer D. School Education, Harper and Brothers New York, Latest Edition.
5. Park, J.E. Text Book of Preventive and Social Medicine (A Treatise on Community Health, Latest Edition, Messers Banarside Bharat Publishers, 1953 Napier Town, Japalpur).

### **PAPER – XVII**

#### **62. TEST, MEASUREMENTS AND ELEMENTARY STATISTICS**

#### **MODULE – I**

#### **Test & Measurement:**

Meaning of the terms: Test Measurement and Evaluation Importance of Tests and Measurements in Physical Education.

Test Evaluation Scientific Authenticity. Reliability, Objectivity, validity, norms.

## **MODULE – II**

Classification – purpose – Classification indices.

Measurement of cardio – respiratory functions Coopers 12 minutes continuous run / walk test – Tuttle Pulse – Ratio Test.

## **MODULE – III**

Sports skill tests:

- i. Lock hart and Mc Pherson Badminton Test.
- ii. Johnson Basketball ability Test.
- iii. Mc. Donald Soccer Test.
- iv. Brady Volleyball Test.
- v. Friedel Hockey Test.

## **Elementary Statistics:**

## **MODULE – IV**

Levels of measurement Nominal / Ordinal / Interval and Ratio measurement.

Measures of central tendency, Mean, Median, Mode.

## **MODULE – V**

Measures of variability, Range, Interquartile range, quartile deviation in variance and standard deviation.

## **REFERENCE BOOKS:**

1. Harrison H Clarke. “Application of Measurement to Health and Physical Education”, New Jersey : Prentice Hall Inc. 1987.
2. Donald K Mathews, “ Measurement in Physical Education”. London: W. B. Saunders Company. 1978.
3. Harold M Barrow, and Mc Gee. Rosemary. “A Practical Approach to Measurement in Physical Education”. Philadelphia : Lea and Febiger. 1979.
4. James S Bosco and William F Gustafson. “Measurement and Evaluation in Physical Education, Fitness and Sports”. New Jersey : Prentice Hall Inc. 1983.
5. Barry L Johnson and Jack K Nelson. “Practical Measurements for Evaluation in Physical Education”. New Delhi : Surjeet Publications. 1982.
5. David H Clarke and H. Harrison Clarke. “Research Processes in Physical Education, Recreation and Health”. Englewood Cliffs, New Jersey: Prentice Hall Inc. 1970.
7. Harry E. Garre. “Statistics in Psychology and Education”, Bombay : Allied Private Ltd. 1958.

## **PAPER – XVIII**

### **63. PLANNING AND CONSTRUCTION OF SPORTS FACILITIES AND COACHING**

Students can opt one game from the following.

Games:

- i. Badminton (Shuttle)
- ii. Basketball
- iii. Cricket
- iv. Football
- v. Handball
- vi. Hockey

- vii. Kabaddi and Kho-kho
- viii. Volleyball
- ix. Tennis
- x. Ball badminton
- xi. Netball

Track and Field - Compulsory for all

This syllabus will adopt for instruction in theory and practical classes with reference to track & field and each games listed above.

## **MODULE – I**

### **THEORY:**

History and development.

- i. In India
- ii. In Asia
- iii. In the world

Organization

- iv. National Level
  - a. National Federation and its affiliated units.
  - b. International Federation and its affiliated bodies.
  - c. Main International Competitions.

Training

- i. Weight Training
- ii. Circuit Training
- iii. Interval Training

## **MODULE – II**

Techniques:

- i. Classification of techniques.
- ii. Physical characteristics and basic fundamentals.
- iii. Specific training
  - a. Preparatory exercises.
  - b. Basic exercises
  - c. Supplementary exercises
- iv. Recreational and lead up, games.

Tactics:

- i. Formation in team games
- ii. Offensive tactics (Individual combined and team)
- iii. Defensive tactics (Individual combined and team)

Training

- i.
  - a. Training methods for the development of motor abilities (Strength, speed, endurance, flexibility and co-coordinative abilities).
  - b. Load: Principles of load, distribution of load, relationship between load and recovery.
  - c. Preordination: Transitional, Preparatory and competition.
  - d. Cyclic process of training
  - e. Training schedule

- ii. General psychological preparation.

### **MODULE – III**

Planning:

- i. Short term plans
- ii. Long term plans

Test and Measurements:

- a. General fitness tests
- b. Specific fitness tests
- c. General skill tests
- d. Functional skill tests
- e. Match analysis
- f. Individual analysis
- g. Graphic (Records and results of major competitions)

### **MODULE – IV**

Practical Work:

Warming UP

- i. General Warming up
- ii. Specific Warming up

General Training

- i. Free hand exercises
- ii. Weight training
  - a. Isometric exercises
  - b. Isometric exercises
  - c. Is kinetic exercises
- iii. Exercise for the development of flexibility ability Co-ordination and rhythm.
- iv. Continuous running
- v. Interval training
- vi. Resistance training
- vii. Circuit training
- viii. Fartlek training
- ix. Wind sprint and other methods of developing speed

### **MODULE – V**

Technique: Each technique will be dealt under the following heads.

- i. Teaching of skills
- ii. Training of skills
- iii. Coaching of skills

Tactics and Strategies:

- a. Formation in team game
- b. Individual tactics and strategies (attack and defense)

### **Reference Books**

1. Doherty J. Kenneth – Modern Track and field, Englewood Cliffs, N.J. Prentice Hall Inc.,
2. Domosey, J.C. Better, B. Dinton for all.
3. Wade Allen – The F.A. Guide to training and coaching.
4. Ambruster, Allen and Billing, Swimming and Diping
5. Rajki Ble, Waterpolo.
6. Kunzle, G.C. and Thomas, B.W. Olympic Gymnastics Vol. No I & II.
7. M.C. V., The C.C.Cricket Coaching Book.
8. Buon J.W. Basketball Techniques and team play.
9. Keith Art Complete guide to championship Wrestling.
10. Barry C. Pedsod – Tennis
11. Dr. Fewra Mezo – The Modern Olympic Games, Gudapest, Peenonia Press.
12. Seaton D.C. Dhyton I.A. Leiby, H.C. and Messurmith, I Basic Book of Sports, Englewood Cliffs, N.L. Prentice Hall.





**Department of Physical Education and Sports Sciences**

**BACHELOR OF PHYSICAL EDUCATION  
(B.P.Ed.)**

**ELIGIBILITY FOR ADMISSION:**

A candidate shall be eligible for admission to the Bachelor of Physical Education (B.P.Ed.) course if he/she has taken a Degree of this university or of some other University, recognized as equivalent thereto, subject to the following conditions.

- i) Must have represented at the College or District or university level competition in any one of the games or sports.
- ii) Should have secured at least 50% marks in the selection tests to be conducted by the Department of Physical Education and Sports Sciences as indicated below;

Sl.No	Men	Women	Marks
1.	100 m. Race (No crouch start)	50 m. Race (No crouch start)	10
2.	Situps (bent knee)	Situps (bent knee)	10
3.	Vertical jump	Vertical jump	10
4.	800 m. Run	600 m. Run	10
5.	Written Test	Written Test	20
6.	Games / Proficiency in Sports (Any one game or one track and one field Event)		40
	Total		100

- iii) Candidates should not have completed the age as on 1<sup>st</sup> July of the academic year as indicated below

**OC / BC / MBC - 30 Years**  
**SC / ST - 35 Years**

100 Candidates will be selected on the basis of merit following the reservation of seats as prescribed by the Government of Tamil Nadu, from among those candidates who secure not less than 50% of marks in the selection test.

However, the above age restriction is relaxed by two years for OC, OBC(BC) and MBC Candidates. Who have played Inter District/ Inter Division at the University level.

**ELIGIBILITY FOR ADMISSION TO THE EXAMINATION:**

Candidates to be admitted to the B.P.Ed. degree examination should produce before the examination a certificate that they have undergone the prescribed programmes of study in this university and earned 80% of attendance.



Attendance at the Annual Leadership Training camp is compulsory for all the candidates.

The course of study shall be as follows,

## **PART A – THEORY**

### **I SEMESTER**

11. History and Principles of Physical Education and Educational Psychology
12. Organization, Administration, Recreation and Methods in Physical Education.
13. Anatomy, Physiology and Psychology of Exercise and Health Education
14. Rules of Games and Sports- I

### **II SEMESTER**

21. Kinesiology, Biomechanics and Care of Athletic Injury and Rehabilitation
22. General Theory and Methods of Sports Training
23. Test, Measurement and Evaluation in Physical Education and Educational Technology.
24. Rules of Games and Sports- II

## **PART B – PRACTICE TEACHING**

Including observation and school visits, Practice Teaching (attendance in schools shall be for four weeks of which two shall be continuous.)

## **PART C – PRACTICE TEACHING**

Participating in and learning the teaching methods and techniques of the following activities

- a.
  1. Major games: Volleyball, Football, Hockey, Basketball, Kabaddi, Kho-kho, Softball and Cricket.
  2. Track and field Events.
  3. Gymnastics and Tumbling.
  4. Indigenous activities (Dhanda, Baithaks, Asanas, Suryanamaskars and Malkhamb).
  5. Conditioning Exercises (General and Specific)
  6. Calisthenics and Marching
  7. Light Apparatus (Clubs, Dumb-bells, Wands and Poledrill)
  8. Rhythmic (Leziums and Folk Dance)
- b.
  1. Organization and Conduct of Competitions
  2. Camping and Hiking
  3. Visits to Recreational Projects
  4. Laboratory works in Care of Athletic Injuries and First Aid.

The scheme of Examinations shall be as follows.

**FIRST SEMESTER**

**PART I – THEORY**

Paper Code	Subject	Duration	Internal	External	Total
		Hours	Marks	Marks	Marks
11.	History and Principles of Physical Education and Educational Psychology	3	25	75	100
12.	Organization, Administration, Recreation and Methods in Physical Education	3	25	75	100
13.	Anatomy, Physiology and Physiology of Exercise and Health Education	3	25	75	100
14.	Rules of Games and Sports- I	3	25	75	100
					400

**PART III – PRACTICAL  
(Internal Assessment)**

Major Games	90	
Indigenous activities Light Apparatus and Rhythmics	60	200 Marks
Track and Field Events	50	

**SECOND SEMESTER**

**PART I – THEORY**

Paper Code	Subject	Duration	Internal	External	Total
		Hours	Marks	Marks	Marks
21.	Kinesiology, Biomechanics and Care of Athletic Injury and Rehabilitation	3	25	75	100
22.	General Theory and Methods of Sports Training	3	25	75	100
23.	Test, Measurement and Evaluation in Physical Education and Educational Technology	3	25	75	100
24.	Rules of Games and Sports- II	3	25	75	100
					400

Total Marks for Part I = 400 + 400 = 800 Marks.

## BOTH I & II SEMESTER (THEORY)

For a pass, a minimum of **40%** marks shall be required in each paper in the University Examination.

### PART II - TEACHING PRACTICE

		Marks
1.	Internal Assessment of practice Teaching University Examination	75
2.	General Lesson	50
3.	Special Lesson (Track and Field and Major Games)	50
4.	Record Book	25
		200

For the Practice Teaching Examination which shall be conducted by the University at the end of the II semester there shall be atleast one external and one internal examiner. For practice teaching each student should maintain a record book which shall contain record of atleast 20 lesson supervised by a qualified physical education teacher and also the internal assessment marks should be submitted to the examiners conducting the University Examination in practice teaching. A candidate who fails in Part II practice Teaching shall not have more than three chances to pass part II.

### PART III - PRACTICALS

(Internal Assessment)

	Marks
Major Games	100
Gymnastics and Tumbling	50
Track and Field Events	50
Calisthenics and marching	25
First Aid and Care of Athletic Injuries and Physiotherapy	50
Kinesiology Record	25
	Total
	300

Total for part III = 200 + 300 = 500 Marks.

Candidates shall not have more than three chances to pass part III practical.

#### Requirements for passing:

Candidates appearing for the University Examination shall satisfy the following conditions.

- a. A Minimum of 80% of Attendance
- b. A Minimum of 40% of total aggregate marks in practical Examinations under part III conducted by the Department. Any Candidates who does not satisfy the above conditions shall satisfy the requirements before appearing for the examination or the subsequent University Examinations.

No candidate shall be eligible for the award of the B.P.Ed. Degree unless he/she has passed the written examinations (Part I) the

practice teaching examination (Part II) and practical Examinations (Part III).

Candidate who have failed in any paper under Part I in I Semester can appear only for that paper in the subsequent Semester.

Failure to appear at the II Semester Examination as a regular student shall not disqualify a candidate from appearing for the subsequent examination as a private candidate on a fresh application with the prescribed fee provided he has fulfilled all the conditions as regular student to appear for the University Examination.

A candidate shall be declared to have passed in Part I (Written) examination if he obtains not less than 40% in each paper. All other candidates shall be deemed to have failed in the written examination.

A candidate shall be declared to have passed in Part II (Practice Teaching) Examination, if he obtains not less than 40% of marks. All the other candidates be deemed to have failed in Part II.

### **1. Classification**

The achievement of the candidate in Part I, II & III shall be mentioned separately on the following basis.

60% and above	I Class
50% and 59%	II Class
40% and 49%	III Class

A candidate shall be declared to have passed with Distinction if he obtained 75% or more of the aggregate Marks at his/her first appearance.

# SYLLABUS

## [I SEMESTER]

### PAPER 1

#### **11. HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION AND EDUCATIONAL PSYCHOLOGY**

##### **MODULE I**

Physical Education in Ancient Greece - Sparta - Athens - Origin and development of Ancient Olympics-Turnovering movement- Revival of Modern Olympics - Physical Education in India- Influence of great Britain and U.S.A. - Y.M.C.A its contributions - Teacher training in physical education - National Physical Efficiency Drive.

##### **MODULE II**

Introduction - Meaning of the term Principle - Sources of principles of physical Education- Definition - Aim and objectives of education and Physical Education- Physical Culture - Physical Training- Theories of play- Sociological Foundations- Meaning and Definition of Socialization - Socialization through Physical Education.

##### **MODULE III**

Philosophies of Physical Education Idealism, Realism, Pragmatism, Naturalism and Existentialism - Biological Foundations of Physical Education Hereditary traits - Muscle Tone - Athletic Heart - Unsynchronized development - Reciprocal innervation - Differences between boys and girls during the period of adolescence - Somato type classification according to Sheldon and Kretschmer.

##### **MODULE IV**

Introduction - Meaning and definition of Psychology and Sports Psychology - its scope - relation to other sciences - personality - types of personality - Intelligence - I.Q. Individual differences - Feeble minded Morons - imbeciles and idiots. Instincts and emotion.

##### **MODULE V**

Learning process - The Theories of Learning - Imitation - Conditional Response - Trial and Error - Insight - Types of learning - Primary, Associate and Concomitant - learning curve - Transfer of learning with special reference to Physical skills - Laws of learning - (i) Readiness (ii) Exercise (iii) Effect (iv) Frequency (v) Recency (vi) Intimacy - Motivation - Intrinsic and Extrinsic motivation.

##### **REFERENCE BOOKS:**

1. Foundations of Physical Education, by Charles A. Bucher; C.V. Mosby Company.
2. Principles of Physical Education, by Jesse Fatring Williams. W.B. Saunders Company, Philadelphia, London.

3. Introduction to physical Education, by Jackson R. Sharman, A.S. Barnes Company, New York.
4. Modern Principles of Physical Education, by Jackson R. Sharman, Bowen and A.S. Barnes Company, New York.
5. The Theory of play, Mitchell and Merson, A.S. Barnes Company. New York.
6. An Introduction to Physical Education, by Nixon and Cozens, W.B. Saunders Company Philadelphia, London.
7. Psychology of Adolescence in Education by Sonson, Sc Graw Hill Inc. Toronto, London.
8. Psychology of Adolescence by Carrison. Prentice Hall Inc. New York.
9. Foundation of Psychology by Boring Longfied Weld, John Wiley and Sons, Inc New York.
10. Educational Psychology by Cate and Others, The Macmillan Co., New York.
11. Education Psychology o\by Blair Jones and Simpson. The Macmillan Company New York.
12. A Brief History of Physical Education in India, by K. Rajagopalan.
13. A Brief History of Physical Education, by Rice and Hutchinson.
14. History of Physical Education, by Leonard and Affiok.
15. A National Plan of Physical Education and Recreation.

## **PAPER 2**

### **12. ORGANISATION, ADMINISTRATION, RECREATION AND METHODS IS PHYSICAL EDUCATION**

#### **MODULE I**

Meaning of Organization and Administration- importance of organization- guiding principles of organization - Schemes of Health and Physical Education in schools, colleges, universities, districts, states etc.- Playgrounds - outdoor and indoor - standards for education institutions - layout of play grounds - athlete track - care and maintenances - Equipment minimum requirement for an educational institution-purchase of equipment (policies and procedures) care of equipments (general and specific).

#### **MODULE II**

Curriculum - Need and Importance of syllabus - types of programme-factors influencing programme planning - characteristics of a sound programme - Preparation of Time-table, Physical Education and school time-table, before school activities, after school activities- types of physical education periods - Staff and leadership-need for trained leaders -qualifications of physical education teacher-supervisor-classroom teachers, students, parents, and community - Students leadership.

#### **MODULE III**

Meaning and importance of method - factors influencing method-Personal preparation - technical preparation - organising subject matter-teaching aids-class management - Steps in presentation - orientation - explanation-demonstration, exploration, correction and repetition - discussion-evaluation - Various methods of teaching activities - command method, demonstration methods - At will method - set drill method, part and whole method etc.

## **MODULE IV**

*Teaching of Activities:* Formal activities (including indigenous exercises), gymnastics, rhythmic activities, major games, and minor games. Lesson plans, general and specific. Competitions and tournament-tournaments and leagues, groups competitions-intramural-extramural-sports meet-play day- Source of Income, approved items of expenditure-rules for the utilization of games fund of physical education – fund preparation and administration of budget – accounting - Office Management: Maintaining various types of records and registers and reports.

## **MODULE V**

Introduction to Recreation - Definition, Scope and significance – Philosophy and Object, Relationship of play, work, leisure and recreation, Historical Development of Recreation- Recreation in primitive culture – Greek period, Roman Period and Middle ages – Development of recreation in U.S.A. Recreation in India since Independence- Programme planning in Recreation – Types of Recreational Activities – indoor and outdoor games. Arts and Crafts- Drama, Music, Hobbies, Aquatics, dances, nature study, hiking, evaluation of programmes.

### **REFERENCE BOOKS:**

1. Voltmer and Eslinger, "Organization and Administration of Physical Education", Appleton Century Crafts, N.Y.
2. Nash Meench and Saurbon, "Organization and Administration of Physical Education", A.S. Barnes Co.,
3. Mabel Lee A.S, "The Conduct of Physical Education", Barnes Co.
4. P.M. Joseph "Organization of Physical Education", Old Student Association T.I.P.P.E., Kandivli.
5. Dr.J.P.Thomas, "Organization of Physical Education", Gnanodaya Press, Madras.
6. Caswell and Cambell, "Curriculum Development", American Book Co., N.Y.
7. W.Irwin C.V. Cowell and Hazelton, "The Curriculum Designs in Physical Education", Prentice Hall

## **PAPER 3**

### **13. ANATOMY, PHYSIOLOGY AND PHYSIOLOGY OF EXERCISE AND HEALTH EDUCATION**

#### **MODULE I**

Characters of living bodies (animals) - Cell and its parts – cell division - cellular basic of life. Heredity. A brief account of Evolution and Evolutionary adaptations of man- Tissue in the Human body and general arrangement of the body- The arrangement and Functions of the skeleton- Sex differences in the skeleton - General Classification of the joints

#### **MODULE II**

Cardio-Respiratory systems - structure of the heart - circulation of blood. Cardiac cycle. Blood pressure – Pulse – Blood vessels-Structure of Lungs- mechanism of respiration - Effect of exercise - cardiac output, stroke volume , heart rate, vital

capacity, lung volume, ventilation and Oxygen intake. Effect of training on respiratory system and Cardiac System

### **MODULE III**

Structure and function of Digestive System - Structure and functions of Kidneys and skin- Glandular Systems - Pituitary, Thyroid Parathyroid, Adrenal and Sex Glands- Nervous Systems - functions of cerebrum cerebellum, Medulla and spinal cord-Reflex Arc-Automic Nervous system and Central Nervous System

### **MODULE IV**

Definition of Health - Ecology of Health, Determinants of Health. Organization & Administrative set up of the Health Services in India - Dynamics and Disease Transmission, mode of Disease Transmission, Immunity and Susceptible Host, personal Hygeine – Care of Skin, Mouth, Nails Clothing, bathing etc.- Importance of rest, sleep and exercise- Health of the Community – Brief account of Housing, Water supply, Milk and Food hygiene, Sewage and refuse disposal

### **MODULE V**

History – School Health Problems – Appraisal aspect including morning health inspection – Remedial Measures – Healthful School Living – School Healthful Administration – Mental Health, School Health Records – Mid – Day Meal Programme- Classification of Foods - Balanced diet for school children, Athletes and Adults- World Health Organization and other National and International Organizations and Agencies

#### **REFERENCE BOOKS:**

1. Health Education by Moss and others (National Education Association of U.T.A) latest edition.
2. Turner et.al School Health and Health Education St. Louis, The C.V.Mosby Co. 1970.
3. Namir A. The School Health Education, Harper and Brothers, New York.
4. Oberteutfer D. School Education, Harper and Brother New York, latest Edition.
5. Park. J.E. Text book of Preventive and Social Medicine (A Treatise on Community Health Latest Edition Messers Banarside Bharat Publishers, 1263, Napie Town, Jabalpur)

### **PAPER 4**

#### **14. RULES OF GAMES AND SPORTS- I**

[Volleyball / Handball / Badminton / Softball /Cricket / Basketball and Athletics]

### **MODULE – I**

Planning, Construction and Marking of Non-Standard Track – Arc start – Double arc start – Computation of R.D.R – Stagger distance and Diagonal Excess – Marking of Shotput and Discus throwing sector – Long Jump and High Jump, Runway and Landing area.



## **MODULE – II**

Rules and their Interpretations of Track Events (Sprint, Middle and Long Distances) – Field Events (Shotput – Discus throw – Long Jump and High Jump) - Officials and their duties for Track and field Events

## **MODULE – III**

Qualification and qualities of an official – General Principles of Officiating – Mechanism of Officiating: Volleyball, Handball, Badminton, Softball, Basketball and Cricket- Duties and powers of officials.

## **MODULE – IV**

Measurement and markings of the following games: Volleyball, Handball, Badminton, Softball and Cricket

## **MODULE – V**

Rules of the following games and their Interpretation: Volleyball, Handball, Badminton, Soft-ball and Cricket

### **REFERENCE BOOKS:**

1. George Immanuel, “Track and Field event layout and Marking”.
2. AAFI Rules Book.
3. R.L. Anand, Play Field Manual Patiala: “NIS Publication”, 1990.
4. H.C. Buck, Rules of Games and Sports, Madras: YMCA Publications, 1992.
5. Bunn, J. W. The Art of officiating Sports, Prentice Hall, Englewood Cliff. M.J. 1951.

## **[II SEMESTER]**

### **PAPER 5**

#### **21. KINESIOLOGY, BIOMECHANICS AND CARE OF ATHLETIC INJURY AND REHABILITATION**

##### **MODULE I**

Role of Kinesiology in Physical Education and Sports- Structure and types of joints in the body and their movements - Framework of a Muscle Fibre - Philosophy of Coaching – personal qualities and qualifications of a Coach. Theory of Coaching - Scientific Principle of coaching

##### **MODULE II**

Origin, Insertion and action of muscles with special reference to the following muscles: Pectoralis Major - pectoralis minor- Glutius maximum- Rectus abdominis- Latissimus. Dorsi, Deltoid- Biceps, Triceps-Gastrocnemius.

### **MODULE III**

Lever- I class lever, II class lever, III class lever and their application to games and sports - Equilibrium – motion – velocity (in relation to correct form or style) - Force of gravity – Newton’s law.

### **MODULE IV**

Biomechanics : Meaning – Definition – function- Need and Importance of Biomechanics in Sports – Mechanical analysis of Walking, Running, Throwing and Jumping- Linear Kinematics – Distance and Displacement – Speed and Velocity – Acceleration – Angular Kinematics – Angular Speed and Velocity – Linear and Angular Kinematics.

### **MODULE V**

Common types of athletic injuries (causes, diagnosis and treatment)- Sprains, strains contusions- Laceration and Abrasion- Fractures and Dislocation - Internal Injuries - Guiding Principles of physiotherapy, Modalities, their application and effects - Hydrotherapy : Cold, Hot and Contrast – Whirl pool bath – Electro Therapy : Infra red, Diathermy, Ultrasonic -Massage -Swedish system-principles-manipulation-application.

### **REFERENCE BOOKS:**

- 1 ) Karpovich W.B.,” Physiology of muscular activity”, Saunders Co.
- 2) Morehouse, “Physiology of exercise”, C.V.Mosby Co.
- 3) Kenneth A.Penman, “Physical Education for college students”, C.V.Mosby-Co.
- 4) Augusts Thorndike, “Athletic Injuries”.
- 5) Allen J.Ryan, “Medical care of the Athlete”,.
- 6) Rasel and Burke, “Kinesiology and applied anatomy”.
- 7) Human kinesthesia and analyzing body movements, by T .M.Anderson
- 8). Massage and remedial exercises,by N.M.Tidy.
- 9). The ABC of athletic injuries and conditioning, by Alfred Barrot Forguson Jr., and Jay Bender.
- 10) John W Bunn, Scientific Principles of Coaching. New Jersey : Prentice Hall Inc., 1985.
- 11) Kreighbawn, E and Barthels, K.M. Biomechanics : “A Quantitative Approach for Studying Human Movement”, Minneapolis : Burgess Publishing Co., 1981.

## **PAPER 6**

### **22. GENERAL THEORY AND METHODS OF SPORTS TRAINING**

#### **MODULE I**

Sports Training :Meaning and Definition, Aim of Sports training, Forms of Sports Training; Characteristics of Sports training; Sports training process; Basic Principles of sports training.

#### **MODULE II**

Training Load: Principles of Load; Components of Load: Intensity, Density, Volume, Frequency, Over Load, Over training, Super Compensation.

### **MODULE III**

Warming up- Meaning – Types: General, Specific – Benefits of Warming up – Warming down – Purpose of warm down – Types of training – Weight Training – Circuit Training – Interval Training, Fatlek training – Swiss Ball Training – Cross Training.

### **MODULE IV**

Motor Components and Physical Fitness : Speed: Meaning, Factors determining the speed performance, Reaction ability, Acceleration Ability, Locomotor Ability, Strength : Meaning: - Types of Strength: Maximum strength – Explosive Strength, Strength endurance: - Factors determining the strength.

### **MODULE V**

Endurance: Meaning, Importance of endurance, Types of endurance, Factors determining the endurance, Flexibility: Meaning, Types of Flexibility, Factors determining the flexibility – Coordinative Abilities: Agility, Balance and coordination.

### **REFERENCE BOOKS:**

1. Hardayal Singh, “Sports Training, General theory and methods”, NSNIS, Patiala.
2. Carl E. Klafs, Daniel D. Amheim, “ Modern Principles of Athletic Training”, C.V. Mosby Company, St Louis.
3. Bunn, J.N. “ Scientific Principles of Coaching”, Prentice Hall, Engle wood Cliffs, new Jersey.
4. Jenson, C.R, and Fisher, A.G, “Scientific Basis of Athletic Conditioning’, Philadelphia.

### **PAPER 7**

### **23. TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION AND EDUCATIONAL TECHNOLOGY**

#### **MODULE I**

Meaning, definition and need of test measurements and evaluation in Physical Education – Classification of Test- objective and Subjective test - Selection of a test-criteria for a good test-validity - reliability-objectivity-norms.

#### **MODULE II**

Areas of evaluation-physical fitness-meaning-definition- components of physical fitness-physical fitness test-AAPHERD youth fitness test. -Motor fitness test - JCR test. -Motor ability test- Barrow motor ability test- Cooper`s 12 minutes run / walk test-Harvard-step test –Newyork State Posture rating test.

### **MODULE III**

Test of specific sports skills : Badminton; French Short Service Test - Basketball; Johnson Basketball Test - Hockey; Smithall - French Field Hockey Test - Football : Mc Donald Wall Volley Test - Volley Ball: Russell Lange Volleyball Test

### **MODULE IV**

Introduction – Generations – Block diagram of a Computer – Hardware & Software - Input and Output devices - Memory : Read only Memory (ROM) – Random Access Memory (RAM) – Importance Characteristics of a Computer .

### **MODULE V**

MS-Word: Working with Document – Page setup – Formatting Paragraphs – Creating Bulleted and Numbered Lists – Fonts – Editing (Cut, Copy & Paste) – Layouts – Language, Grammar & Spelling Checkers – Find & Replace – Tables – Printing – Mail Merge.

#### **REFERENCE BOOKS:**

1. Harold M. Barrow & Rosemary Magee A Practical Approach To Measurement In Physical Education 1979.
2. Clarke H. Harrison And David H. Clarks Application Of Measurement Of Physical Education
3. Barry L. Johnson And Jack K. Nelson Practical Measurement For Evaluation In Physical Education. Nilgoose Erle. Evaluation In Health Education And Physical Education New Yark Mc Gra Eill Book Co. Inc.
4. Guraton Thomas K. Physical Fitness Appraisal And Guidance St. Louis The Mosby Company 1947.
5. Maria Langer, “ Word for Windows “ : Peachpit Press, Berkeley

### **PAPER - 8**

#### **24. RULES OF GAMES AND SPORTS- II**

[Hockey/Football/Kho-Kho/Kabaddi/Balldbadminton and Athletics]

#### **MODULE – I**

Specifications and Markings of Hurdles – Relay Races – Triple Jump – Pole Vault and throwing Hammer- Duties and Responsibilities of the Officials

#### **MODULE – II**

Rules and their interpretations of Hurdle Races, Relay Races – Triple Jump – Pole Vault – Throwing the Hammer.

#### **MODULE – III**

Qualification and qualities of an official – General Principles of Officiating – Mechanisms of Officiating: Hockey, Football, Kho-Kho, Kabaddi and Ballbadminton - Duties and powers of officials.

#### **MODULE – IV**

Measurement and markings of the following games: Hockey, Football, Kho-Kho, Kabaddi and Ballbadminton

#### **MODULE – V**

Rules of the following games and their Interpretation: Hockey, Football, Kho-Kho, Kabaddi and Ballbadminton.

#### **REFERENCE BOOKS:**

1. George Immanuel, "Track and Field event layout and Marking".
2. AAFI Rules Book.
3. R.L. Anand, Play Field Manual Patiala: "NIS Publication", 1990.
4. H.C. Buck, Rules of Games and Sports, Madras: YMCA Publications, 1992.
5. Bunn, J. W. The Art of officiating Sports, Prentice Hall, Englewood Cliff. M.J. 1951.
6. Bunn, J. W. The Basketball Coaches' Guide to Success, Prentice Hall, New York, 1951



Department of Physical Education and Sports Sciences  
2012-13 onwards

**DIPLOMA IN PHYSICAL EDUCATION (D.P.Ed)**

(2 Years Professional Programme)

Physical Education is an inter disciplinary science involving fields related to education, human behavior, sports and social sciences. Physical Education is an integral part of the educational structure and its programme provides suitable physical activities based on need, age, ability and aptitude of the participants.

Duration: The duration of the programme shall be two academic years with two semesters. The semester shall be from July to April in each academic year.

Eligibility for Admission:

- a) A pass in Higher Secondary (10+2 scheme of examination or any other equivalent examination recognized by the University) for admission into the 2 years professional basic Diploma Programme D.P.Ed.
- b) Admission Test and Interview: For admission into the year of D.P.Ed programme, the test consists of
  - i. Physical Fitness 40 marks
  - ii. Written Test 20 marks
  - iii. Games/Sports skill ability 40 marks
- c) Other conditions to be fulfilled by each candidate.
  - i. Must have represented the School/District in Inter School / District competition in any one of the Games or Sports.
  - ii. Must be medically fit and free from physical deformities and approved by the university medical officer.
  - iii. Should secure at least 50% of marks in the selection tests to be conducted by the Department of Physical Education and Sports Sciences as indicated below:

Physical Fitness and Written Test:

	Men		Women	Marks
1.	100 m Race (no crouch start)	1.	50 m Race (no crouch start)	10
2.	Situps (bent Knee)	2.	Situps (bent Knee)	10
3.	Vertical Jump	3.	Vertical Jump	10
4.	800 m Run	4.	600 m Run	10
5.	Written Test	5.	Written Test	20
6.	Games / Sports Proficiency (Any one game or one track and field event)			40
	Total			100

Candidates should not have completed the age as on 1<sup>st</sup> July of the academic year as detailed below,

OC /OBC(BC) /MBC	-	25 Years
SC / ST	-	30 Years
Widow/Destitute	-	30 Years

However, the above age restriction is relaxed by two years for FC, BC and MBC candidates who have played inter district tournaments.

50 Candidates will be selected on the basis of merit, following the reservation of seats as prescribed by the Government of Tamil nadu, from among those candidates who secure not less than 50% of marks in the selection tests.

Eligibility for Admission to the Examination:

Candidates to be admitted to the D.P.Ed, Diploma examination should produce, before the examination, a Diploma that they have undergone the prescribed programme of study in this university and earned 80% of attendance.

Attendance at the Annual Leadership Training camp is compulsory for all the candidates.

### **General Rule – Examination:**

The examination for the Diploma Programme in Physical Education (DPEd) shall consist of three parts.

#### **Part – I : THEORY**

Papers	Theory Papers	Hours	Internal Marks	External Marks	Total Marks
<b>I YEAR</b>					
I	Principles and History of Physical Education	3	25	75	100
II	Sports Management in Physical Education	3	25	75	100
III	Methods in Physical Education	3	25	75	100
IV	Anatomy and Physiology	3	25	75	100
V	Officiating Rules of Games and Sports and Coaching – I	3	25	75	100
<b>II YEAR</b>					
VI	Measurement and Evaluation	3	25	75	100
VII	Recreation, Camping and Safety Education	3	25	75	100
VIII	Health Education, Nutrition and Sports Trauma Management	3	25	75	100
IX	Educational Technology in Physical Education	3	25	75	100
X	Officiating Rules of Games and Sports and Coaching – II	3	25	75	100
Total					1000

#### **Part – II : PRACTICE TEACHING EXAMINATIONS**

##### **A. Internal**

General Lesson	50 Marks
Specific Lesson	50 Marks
<b>Total</b>	<b>100 Marks</b>

B. External (Conducted by the University)

General Lesson	50 Marks
Specific Lesson	50 Marks
<b>Total</b>	<b>100 Marks</b>

Average of the Internal & External will be considered.

**Grand Total (A+B) 200 Marks**

Note : For external practice teaching examination conducted by the University, there should be atleast one external and one internal examiner. The examination shall be conducted at the end of second year only.

**PART III : PRACTICAL EXAMINATION (Internal)**

A – MAJOR GAMES	700 Marks
<b>I Year</b>	<b>Marks</b>
Athletics Part I	50
Football	50
Basketball	50
Handball	50
Kabaddi	50
Softball	50
Throw Ball	50
<b>Total</b>	<b>350</b>
<b>II Year</b>	<b>Marks</b>
Athletics Part II	50
Volleyball	50
Hockey	50
Cricket	50
Kho-Kho	50
Badminton	25
Ball Badminton	25
Tennikoit	25
Table Tennis	25
<b>Total</b>	<b>350</b>

(B) GYMNASTICS: 100 Marks

Ground work, apparatus work like Parallel Bars, Vaulting Horse, Horizontal Bar, Roman Rings, Pommel Horse, Trampoline. The activities in gymnastics shall be taught for two years selecting a few activities in the first year and remaining year. The examination shall be conducted at the end of each year.

(C) INDIGENOUS ACTIVITIES: 50 Marks

- (i) Dhands & Baithaks, Suriyanamaskar - 25 Marks
- (ii) Malkhamb - 25 Marks

(D) ASANAS 50 Marks

(E) LIGHT APPARATUS 50 Marks



## Indian Clubs, Wands, Dumb-Bells and Pole Drill

(F) RHYTHMIC		50 Marks
(i) Lezium	-	25 Marks
(ii) Folk Dance	-	25 Marks
(G) DEFENSIVE ART		50 Marks
(H) MARCHING		50 Marks
(I) CALISTHENICS		50 Marks
Total		1300 Marks

The candidates who fail in the practice teaching examination may present himself at the subsequent examination at which the supervising examiner shall examine the candidates.

### **I Year:**

S.No	Part	Name of the Examination	Marks
1	I	Theory	500
2	II	Practical (Internal)	
		(a) Officiating (any two games)	50
		(b) Major Games	350
		(c) Gymnastics	50
		(d) Rhythmic	50
		(e) Marching	50
		(f) Calisthenics	50
		<b>Total</b>	<b>1100</b>

### **II Year:**

S.No	Part	Name of the Examination	Marks
1	I	Theory	500
2	II	Practice Teaching Internal (Department)	100
		External (University)	100
2	III	Practical Conducted by the Department	
		(a) Officiating (any two games)	50
		(b) First Aid	50
		(c) Major Games	350
		(d) Gymnastics	50
		(e) Indigenous Activity	50
		(f) Light Apparatus	50
		(g) Defensive Art	50
		(h) Asanas	50
		<b>Total</b>	<b>1400</b>

The classes shall be declared separately for theory practice teaching and practicals.

Part I	Theory		1000 Marks
Part II	Practice Teaching	-	200 Marks
Part III	Practical Examination	-	1300 Marks
	<b>Total</b>	<b>-</b>	<b>2500 Marks</b>

## **PASSING MINIMUM:**

The candidates appearing for the examination conducted by the University, should satisfy the following conditions:-

1. Minimum of 80% attendance for each year.
2. Minimum of 50% in practical examination conducted by the Department of Physical Education & Sports Sciences, Annamalai University for every year.

A candidate shall be declared to have passed in written examination if he obtains *not less than 50% in each of the 10 papers. A minimum of 30 marks in each paper in the external* is necessary. All other candidates, who secured less than the prescribed above shall be deemed to have failed in the written examination. The candidates who failed in any paper conducted in the first year shall appear for the written examination in the failed papers in the second year along with the written examination of the second year. The candidates who fail in the written examination conducted for the second year shall appear for the examination in the failed paper only at the subsequent examination.

A candidate shall be declared to have passed practice teaching examination if he/she obtains not less than 50 % in both the internal and external examination conducted by the university.

A candidate shall be declared to have passed the practical examination if he/she obtains not less than 50 % in the practical examination conducted by the university each year.

## **CLASSIFICATION:**

For the award of class the following percentage of marks should be secured by the candidates:-

50 % to below 59 %	-	II Class
60 % and above	-	I Class

## **SYLLABUS**

### **I-Year**

#### **PAPER - 1**

### **11. PRINCIPLES AND HISTORY OF PHYSICAL EDUCATION**

#### **Unit I:**

Meaning of Education, Physical Education, Physical Culture, Physical Training. Aims and objectives of Education and Physical Education - Relationship of Education to General Education.

Meaning of Principle - Sources of Principles of Physical Education - Philosophical and Scientific Principles of physical Education.

#### **Unit II :**

Biological Foundations - Somato Type Classification - Sheldon and Kretschmer classification - Growth and Development - Heredity and Environment - Age

Characteristics – Difference between Boys and Girls during Adolescence – Effect of Exercise - Chronological Age, Physiological age and Mental age.

### **Unit III :**

Sociological Foundations – Gregarious Instinct – Individual and Society – Desire for Recognition – Social Group and their Significance – National Integration – Leadership – Social Qualities.

### **Unit IV :**

Physical Education in Ancient Greece – Sparta and Athens – Rome – Ancient and Modern Olympic Games – Asian Games – Contribution of Basedow – Gutsmuth, Ludwig John – Adolph Spies – Per Henric Ling – Turnverine movement.

### **Unit V:**

Physical Education in India – Epic Age Mohammedan Period – Teacher Training Institution – Influence of Great Britain and USA – Sports Authority of India – Inter University Sports Board – National School Games Federation of India – Sports Development Authority of Tamil Nadu.

## **REFERENCE**

1. Rice & Hutchinson, A Brief History of Physical Education.
2. K. Gopalan, A Brief History of Physical Education in India.
3. Leonard and Afflock, A History of Physical Education.
4. Charles A. Bucher, Foundations of Physical Education, 1984.
5. Y. Zixon, Physical Education.
6. Jackson Scheima, Modern Principles of Physical Education.
7. M.L. Kamlesh, History and Principles of Physical Education, 1991.

## **PAPER – 2**

### **12. SPORTS MANAGEMENT IN PHYSICAL EDUCATION**

#### **Unit I : Sports Management**

Meaning of sports Management – Importance of Sports Management Principles – Objectives – Scheme of Organization – Schools, Colleges Universities, Districts and State.

#### **Unit II: Facilities and Standard of play field**

Gymnastic, swimming pool- equipment- care and maintenance. Staff and leadership- qualities and qualification of a Physical Education teacher.

#### **Unit III: Programme Planning**

Types of programme -Factors influencing programme planning-Preparation of time table- Types of Physical Education periods. Records and registers- budget and finance- preparation and administration of a budget- source of income-items of expenditure payments- accounting and auditing.

#### **Unit IV : Supervision**

Introduction- meaning and needs of supervision- guiding principles of supervision- essential features of supervision-the supervisor's qualification-his relationship with the administrators and the physical education teacher.

Functions of the supervisor - Administrative duties - Duties pertaining to facilities, instruction and professional growth.

### **Unit V**

Methods in supervision- visits- periodic, surprise, request, visitation procedure, report on the visit-meeting-individual groups- demonstration for individual teacher for the group teachers- preparation and conduct of demonstration- in service training- short course-refresher course- clinics- seminar and conference-curricular development- part played by supervisor on it- evaluation of supervision- need for evaluation-action result and observation of evaluation.

## **REFERENCES**

1. Volter & Esslinger: Organization And Administration Of Physical Education, Appleton-Century- Century Crolts.
2. Hushes&French: The Administration Of Physical Education, Ronald Press.
3. Burcher Charless. A. Administration Of Physical Education And Athletic Programme, C.V. Mosby Co. 1987.
4. Neson James G. And Jampaul, Modern Sports Administration [Englewood Cliffs, New Jersary Prentice Hall Inc. 1998]
5. Scular Randall S And Nicholas, J. Personal Management [ New York, West Publishing Company 1984]
6. Vandoorzuar Larold J. Sport Management [ New York, Macmillian Publishing Company 1984]
7. Bonne L. Parkhouse. The Management Of Sports, Its Foundation And Application, Mosby Year Book, St. Louis.
8. Marcia L. Walkar David K. Stoklar, Sports Facilities Management. Jones And Barklett Publishers, Massachusetts.
9. S.S Roy , Sports Management, Friends Publications, New Delhi.

## **PAPER 3**

### **13. METHODS IN PHYSICAL EDUCATION**

#### **Unit I**

Meaning and importance of methods- factors influencing method-presentation techniques-personal preparation-technical preparation-steps in presentation-orientation, explanation, demonstration, exploration correction and repetition-discussion- evaluation-Teaching aids.

#### **Unit II**

Class management-principles of class management-factors influencing class management-Formations-types of commands-Variou methods of teaching activities-oral method-command method-demonstration method-imitation method-dramatization method-at will method-set drill method-part method-whole method-whole-part-whole method.

#### **Unit III**

Lesson plan- values of lesson plan-principles of lesson plan-types of lesson plan-general lesson and specific lesson- construction of lesson plan.

Selection and teaching of physical activity indigenous exercise-gymnastics, calisthenics, marching-asanas, rhythmic activities, aquatics-defensive arts-minor games-major games-track and field.

#### **Unit IV**

Competition-types of competition-merit and demerits of knock out and league tournaments-drawing of fixtures for various competitions-knock out-league-competition tournaments-challenge tournament- intra mural and extra mural-organization and conduct-merits and demerits of intramural and extramural.

#### **Unit V**

Classification of pupils- criteria for classification-method of classification-standard sports meet and non standard sports meet- games tour-play day-incentives and awards-demonstration.

### **REFERENCES**

1. C. Thirunarayanan And Hariharan Methods Of Physical Education, Karaikudi.
2. Kangman, Cassiivity And Jackson Methods Of Physical Education.
3. Davis And Lawther, Successful Teaching In Physical Education.
4. Knapp And Hangman, Teaching Methods Of Physical Education.
5. J.P Thomas, Physical Education.
6. Bucher, Foening And Bernhard, Methods And Material For Secondary Schools Physical Education 1987.
7. Yeakman And Soupsar Modern Methods And Techniques Of Teaching.

### **PAPER 4**

## **14.ANATOMY AND PHYSIOLOGY**

#### **Unit I**

Cell structure and properties-tissues-organs-systems-general management of body parts-skeleton - construction of axial and appendicular of skeleton- sex differences in the skeleton-arches of foot-function of the skeleton-classification of the joints of the body with example of each type-muscular structure differences.

#### **Unit II**

Blood circulation-constituents of blood and their functions-function of blood-blood clotting-blood groups and their transfusion-structure of heart-cardiac cycle-circulation of blood - systemic and regional circulation- lymphatic vessels and lymphatic-blood pressure – pulse rate.

#### **Unit III**

Respiratory passage - lungs-structure and function- exchange of gases-mechanism of respiration.

#### **Unit IV**

Brief account of the structure and function of tongue, teeth, salivary glands, stomach, small and large intestines-pancreas and liver. Brief account of the structure and functions of the kidneys, the skin, the eye and the ear.

#### **Unit V**

Location and functions of the endocrine glands-pituitary, thyroid, parathyroid, adrenaline, pancreas and sex glands, Central nervous system-brain-functions.

### **REFERENCES**

1. Anthony & Kolthoff : The Text Book Of Anatomy And Physiology C.V. Mosbh & CO.
2. Pearce [ Evelyn.C ] Anatomy And Physiology Of Nurse Courses [ 1993], New Delhi, Jaypee Brothers Medical Publications.
3. Jackson [Sheill, M] Anatomy & Physiology[1992] Indore Nr Brothers.
4. Murugesh[N] Basic Anatomy & Physiology [1993] Madurai Sathya Publishers.
5. Chanrasia [Bd ] Human Anatomy, V-3 [1995] Delhi Publishers & Distributers.
6. Blaisall[ Albert Human Phipology[1998] Sports Publication, New Delhi.
7. Gandhi [Tp]& Goyal [Rk] Human Anatomy & Physiology And Health Education 2002: Bs Shah Prakshan Ahemedabad.
8. Devise[Annie] Human Body [1999] Bangalore Vasan Books Dept.

### **PAPER 5**

## **15. OFFICIATING AND RULES OF GAMES AND SPORTS AND COACHING - I**

#### **Unit I**

Theory and practice in officiating and coaching in the following games-athletics part-1 -football-soft ball-Kabaddi-handball, basketball and throw ball.

#### **Unit II**

Rules and interpretation of rules-duties of officials-systems of officiating-position signals.

#### **Unit III**

Teaching of fundamental skills, drills, and development of skills-lead up games. Positional play-tactics-attacking and defensive tactics-individual and team tactics.

#### **Unit IV**

Teaching, training-coaching-meaning and difference-warming up-types-conditioning exercise-principles of sports training-training for motor components, strength, endurance, speed, flexibility, coordinative, abilities.

#### **Unit V**

Types of training-weight training-circuit training-Fartlek training - interval training.

## **REFERENCES**

1. The Art Officiating Sports, John W. Bunn.
2. Scientific Principles And Coach, John W. Bunn.
3. Rules Of Games And Sports
4. Sport Medicine Training-More House And Basch.
5. Modern Principles Of Athletics Training-Klauffs, Ce & Amelein D.D.
6. Efficiency Of Human Movements-Brocer M.R
7. Scientific Basics Athletic Training-Morehouse And Basch.

## **II-Year**

### **PAPER-6**

## **21.MEASUREMENT AND EVALUATION**

### **Unit I**

Introduction; meaning of the terms evaluation and measurement-need and importance of evaluation and measurement-principles of evaluation and measurement. Selection of a test-criteria for a good test-validity - reliability-objectivity-norms.

### **Unit II**

Test classification-individual and group-standard and teacher made tests-objective and subjective test.

Administration of tests-duties before the tests-during the test and sports procedures. Scrutinizing presenting and interpreting-use of the results.

### **Unit III**

Areas of evaluation-physical fitness-meaning-definition- components of physical fitness-physical fitness test-AAPHERD youth fitness test.

Motor fitness test-JCR test.

Motor ability test-barrow motor ability test.

### **Unit IV**

Cardio vascular test- Harvard-step test- Cooper`s 12 minutes run / walk test.

Postural test ; Woodruff body alignment posture.

Classification of pupil, need and importance of classification-methods of classification grading and evaluation in physical education.

### **Unit V TEST OF SPECIFIC SPORTS SKILLS**

- a) Badminton; French Short Service Test.
- b) Basketball; Johnson Basketball Test.
- c) Hockey ;Smithall-French Field Hockey Test.
- d) Football : Mc Donald Wall Volley Test
- e) Volley Ball: Russell Lange Volleyball Test
- f) Tennis: Dyer Tennis Test
- g) SDAT Sports Skill Test.

## REFERENCES

1. Harold M. Barrow & Rosemary Magee A Practical Approach To Measurement In Physical Education 1979.
2. Clarke H. Harrison And David H. Clarks Application Of Measurement Of Physical Education
3. Barry L. Johnson And Jack K. Nelson Practical Measurement For Evaluation In Physical Education. Nilgoose Erle. Evaluation In Health Education And Physical Education New Yark Mc Gra Eill Book Co. Inc.
4. Guraton Thomas K. Physical Fitness Appraisal And Guidance St. Louis The Mosby Company 1947.

## PAPER 7

### 22. RECREATION, CAMPING AND SAFETY EDUCATION

#### Unit I

Recreation-definition, scope and significance-philosophy and objectives-relationship of play-work-leisure and recreation.

#### Unit II

Organization and administration of recreation-agencies offering recreation-home, governmental, voluntary, private and commercial agencies. Rural, urban & community & industrial recreation- areas, facilities equipments & their maintenance.

#### Unit III

Programme planning in recreation-general principles of program construction-types of recreational activities-indoor & out door games-arts & craft, drama, music, hobbies, aquatics, dancing, nature study, hiking, evaluation of camp work.

#### Unit IV

Camping – scope and significance of camping- types of camps-selection and layout of camp sites-organization and administration of camps-leadership and supervision-camp programme and activities evaluation of camp work.

#### Unit V

Safety education-meaning-factors effective safety-safety at home-electrical-play ground-safety at school, gymnasium, swimming pool. Perceptive equipments-role of physical education teacher in safety.

## REFERENCES

1. Williams & Bronald; Administration Of Physical Education.
2. Mabellec The Conduct Of Physical Education.
3. Hughus & French; The Administration Of Physical Education.
4. Govindarajulu; L.K Camping Education 1965 Populi Brothers, Madras.
5. Ganesan S. First Aid 1996 Dhanalakshmi Printers Chennai-17.
6. Delving[ David] First Aid 1995 London Sun Burst Books.
7. Amborosia, [Rdd]&Drez[D], Prevention And Treatment Of Running Injuries, New Jersey, Stac Inc.



## PAPER 8

### **23. HEALTH EDUCATION, NUTRITION AND SPORTS TRAUMA MANAGEMENT**

#### **Unit I**

Health-definition-concepts-importance of health education-factors influencing health

Health service-Supervision-Medical examinations-detection and prevention of diseases-personal hygiene-Desirable health habits-school health problems-health problem of India

-Pollution - Role of physical education teacher.

#### **Unit II**

Infection-immunity-causes of diseases cholera, malaria, -small pox - whooping cough, dysentery, diphtheria, mumps, typhoid, mode of infection-spread of infection-preventive measures to combat infection - public health administration - sanitation.

#### **Unit III**

Nutrition, diet, components of foods, sports and diet - energy requirements in sports-calorie calculation - diet planning-factor determining diet.

#### **Unit IV**

Sports trauma - meaning-importance-treatment for shock, poisoning, Drowning, bleeding, fractures, sprain, strain, dislocation, fainting, abrasion, dog bite- first aid-cuts-kinds of bandage, kinds of dressing, sunstroke-general role of burns-snake bite.

#### **Unit V**

Physiotherapy- definition-importance of physiotherapy, principles of physiotherapy-electrotherapy-hydrotherapy-thermotherapy, massage-postural deformities-therapeutic exercise and use.

### **REFERENCES**

1. Health Full Living ; Mc Graw Hill, Delhi, 1977.
2. Teaching Health Education-Houghton.
3. Health And Nutrition In India-Ganguly.
4. Education For Safe Living-Stack, Herbat, J. Luke.
5. Safety Education-Floria, A.A. & Stafford G.T
6. First Aid-Health Encyclopedia.

## PAPER 9

### 24. EDUCATIONAL TECHNOLOGY IN PHYSICAL EDUCATION

#### Unit I EDUCATIONAL PSYCHOLOGY

Meaning of psychology-educational psychology, its role in physical education-personality types of personality- IQ-individual differences-slow learners. Theories of learning-limitation-conditioned response - trial and error-insight.

#### Unit II

Laws of learning- readiness-exercise-effect-frequency-recency-intimacy-types of learning-primary-associate and concomitant learning-transfer of learning-positive-negative-learning types theories of play.

#### Unit III GUIDANCE AND COUNSELLING

What is guidance-need of guidance and counseling-educational guidance to pupil-how to reader personal or psychological guidance, meaning of counseling exceptional/ gifted children/ creative children - psychology of group- different fields counseling-methods of counseling-process of counseling - evaluation in counseling.

#### Unit IV COMPUTER EDUCATION

Introduction of computers-Types of computers-Physical components of computer-Basic data entry concepts - Word processing-Spread sheet.

#### Unit V COMMUNICATION SKILLS

Basics of communication- communication goals- communication barriers-principles of communications-leadership-the art of speaking-presentation.

#### REFERENCES

1. Skinner, C.E. Educational Psychology Prentice Hall Of India Pvt. Ltd. New Delhi, 1964.
2. Mangal S.K Educational Psychology Parkash Brothers Educational Publishers, Ludhiyana.1989.
3. Manddell L.S. Computer & Date Processing Today, West Publishing Co. St. Paul 1986.
4. Abraham, R. Personality Developemtn Communication Skills And Public Speaking ,Same Catherine Press, Chennai 1995.
5. Crow And Crow, Gidence And Counseling.

## PAPER 10

### 25. OFFICIATING AND RULES OF GAMES AND SPORTS COACHING - II

#### Unit I

Theory and practice of officiating and coaching in the following games. Athletics part -II-volley ball, hockey-kho-kho, ball badminton-cricket-badminton-tennis-table tennis.

History and development of the games or sports-ground dimensions and markings-standard equipments.

#### Unit II

Rules and interpretation of rules-duties of officials-systems of officiating-positions – signals and etc..

#### Unit III

Teaching of fundamental skills-drills for development of skills-lead up games. Positional play- tactics- attacking and defensive tactics- individual and team tactics.

#### Unit IV

Philosophy of coaching-qualities and qualifications of a coach. Training load, components of load- intensity-density-duration-frequency-principles of load, symptoms of over load and tackling over load.

#### Unit V

Periodisation- types- preseason- competitive season- off season, planning-long term plan-short term plan-preparation of schedules-selection of players.

#### REFERENCES

1. The Officiating Sports, John W. Bunn,
2. Scientific Principles Of Coach, John W. Bunn.
3. Rules Games Of Sports.
4. Sports Medicine For Trainers-More House An Basch.
5. Modern Principles Of Athletic Training-Klafs, C.E & Amleim D.D
6. Scientific Basic Athletic Training-More House & Basch.

**Department of Physical Education and Sports Sciences**

2012-13 onwards

**MASTER OF PHYSICAL EDUCATION (M.P.Ed.)**

**CHOICE BASED CREDIT SYSTEM**

**DURATION**

The duration of the programme shall be of two academic years with four semesters under the Choice Based Credit System. The semesters shall be from July to November and December to April for each academic year.

These programmes offer a package of certain core courses and some elective courses for the effective interaction among students from different disciplines. The novelty of the programmes consists in the inter disciplinary curriculum with pronounced accent on the frontier areas of knowledge. Under this system, the programmes comprise several papers, which are referred to in terms of the credits they are worthy and the grading of students according to their performances.

**ELIGIBILITY FOR ADMISSION**

A candidate for admission to the Master of Physical Education (M.P.Ed.) degree programme should have passed B.P.E (or) B.P.E.S (or) B.P.Ed examination of this university and / or from any other university recognized as equivalent thereto. They must have represented, district / college and participated in the Inter district / inter collegiate tournaments in any one of the games or sports, subject to the conditions (i, ii and iii)

- i) Must be medically fit and free from physical deformities and approved by the Medical Officer.
- ii) Should have secured at least 50% marks in the selection tests to be conducted by the Department of Physical Education and Sports Sciences as indicated below;

**Physical Fitness and Written Test:**

Sl.No	Men	Women	Marks
1.	100 m. Race (No crouch start)	50 m. Race (No crouch start)	10
2.	Situps (bent knee)	Situps (bent knee)	10
3.	Vertical jump	Vertical jump	10
4.	800 m. Run	600 m. Run	10
5.	Written Test	Written Test	20
6.	Games / Proficiency in Sports (Any one game or one track and one field Event)		40
Total Marks			100

- iii) Candidates should not have completed the age as on 1<sup>st</sup> July of the academic year as indicated below

**OC / BC / MBC. - 32 Years**  
**SC / ST - 35 Years**

However the above age restriction is relaxed by two years for FC, MBC and BC candidates who have played Inter University / Inter State / Inter District Tournaments (Form III or II or IV).

40 Candidates will be selected on the basis of merit following the reservation of seats as prescribed by the Government of Tamil Nadu, from among those candidates who secure not less than 50% of marks in the selection test.

### **ELIGIBILITY FOR ADMISSION TO THE EXAMINATION**

Candidates admitted to the M.P.Ed. degree should produce before the examination a certificate that they have undergone the prescribed programmes of study in this university and earned 80% of attendance.

Part I Examination shall consist of fifteen written papers and a project. In lieu of the thesis a student can opt for the optional paper. The project should be prepared under the guidance of a member of the staff, who shall be the Advisor / Guide. Thesis is to be completed in the fourth semester.

The last date for the submission of project will be 15 days after the last theory examination paper of fourth semester. Thesis must be submitted with the signature of the Advisor / Guide.

Three typewritten copies of the project together with three copies of the abstract ( one for the departmental library and two for the university) should be submitted through the department.

One external examiner shall value the project. The internal examiner should be the candidate's advisor / guide.

### **EVALUATION**

If a candidate fails in any paper in any semester he/she shall be permitted to join the next semester, in which case he/she will appear in the papers in which he/she had failed in the previous semesters along with all the papers of the current semester.

A candidate must complete the course of study for the degree of Master of Physical Education and Sports and pass the final examination within a period of 5 years commencing from his first admission to the course.

If a candidate fails in any paper of any semester examination and reappears as an ex-student, the internal assessment marks obtained by him/her shall be carried over.

If a candidate fails in Practical - Specialization, he/she will be required to take the same at the time of tests held for regular students in the same subsequent years.

The internal assessment marks awarded by the Department shall be added to the marks obtained at the University examination in each Theory paper before calculating the percentage of marks. A candidate shall be deemed to have passed the Written examination and project, if he/she obtains not less than 50% marks of the total aggregate marks. Candidates who do not secure marks as detailed above shall be deemed to have failed in theory examination.

A candidate shall be declared to have passed in Practical – Specialization examination, if he/she obtains not less than 50% of the combined marks (Internal + External). All the other candidates shall be deemed to have failed in practicals.

### **INTERNAL ASSESSMENT**

- a) There will be no supplementary test for internal assessment
- b) The internal marks should be sent to the University before the written examination.
- c) The valued answer papers shall be returned to the students and then collected back from them after perusal in the class room itself. The marks shall be displayed in the Department notice board. The teacher shall also discuss the answers to questions in the class and supply the correct answers. The papers shall be available for review by the University, if necessary.
- d) If a student is not satisfied with the valuation of the paper he/she may appeal to the Head of the Department within 3 days for consideration. Such appeals shall be referred to a Review Cell consisting of the Dean, the Head of the Department and senior member of the department (nominated by the Head. If the head of the Department himself is the subject teacher, another senior member of the Department (in addition to the Dean and senior members of the Department) in lieu of the Head of the Department will be nominated to be a member of the Review Cell. The marks awarded by the cell will be the final marks.
- e) The candidates desirous of improving the internal assessment marks should undergo the course of study once again for the semester after obtaining the prior permission of the University after canceling the previous appearance of paper/papers in the University examinations.

### **PART – II : PRACTICAL SPECIALIZATION:**

The candidate has to select any one of the following games as the specialization-I (Second best) and also specialize in the given Track and Field events during the first Year

Games	Track and Field
1. Basketball	1. Sprint
2. Cricket	2. Middle & Long Distance
3. Football	3. Long Jump
4. Hockey	4. High Jump
5. Kabaddi	5. Shot put

6. Kho kho	6. Discus Throw
7. Tennis	7. Heptathlon
8. Volleyball	8. Cross Country Race
9. Badminton	
10. Ball Badminton	
11. Weight Lifting	
12. Handball	
13. Netball	

In the second year candidate has to select any one of the following games as the specialization (The best game) and also specialize in the given Track and Field events during the Second year.

Games	Track and Field
1. Basketball	1. Relay (Visual & Non Visual)
2. Cricket	2. Hurdles (High & Low)
3. Football	3. Triple Jump
4. Hockey	4. Pole Vault
5. Kabadi	5. Javelin Throw
6. Kho Kho	6. Hammer Throw
7. Tennis	7. Decathlon
8. Volleyball	8. Marathon Race
9. Badminton	
10. Ball Badminton	
11. Weight Lifting	
12. Handball	
13. Netball	

## **SCHEME OF EXAMINATIONS**

### CORE AND ELECTIVE COURSES

#### **FIRST SEMESTER**

Subject Code	Core course	Name of the Subject	Credit Points	Internal	External	Total
PEDC	101	Sports Management	3	25	75	100
PEDC	102	Sports Psychology and Sociology	3	25	75	100
PEDC	103	Test, Measurement and Evaluation in Physical Education	3	25	75	100
PEDP	104	Track and Field	4	50	---	50
PEDE	105	Elective: - History, Principles and Foundations of Physical Education	4	25	75	100
PEDP	106	Major Games – Specialization I (Second Best Game)	4	50	-	50
		Total	21	200	300	500

**SECOND SEMESTER**

Paper	Core course	Name of the Subject	Credit Points	Internal	External	Total
PEDC	201	Research Methods in Physical Education and Sports	3	25	75	100
PEDC	202	Statistics in Physical Education	3	25	75	100
PEDC	203	Rules of Sports, Games and Officiating – I	3	25	75	100
PEDP	204	Track and Field	5	40	60	100
PEDE	205	Elective:- Theory and Practice of Cricket and Tennis	4	25	75	100
PEDP	206	Major Games – Specialization I (Second Best Game)	5	40	60	100
		Total	23	180	420	600

**THIRD SEMESTER**

Paper	Core course	Name of the Subject	Credit Points	Internal	External	Total
PEDC	301	Exercise Physiology and Sports Medicine	3	25	75	100
PEDC	302	Computer Applications	4	25	75	100
PEDC	303	Sports Training Methods	3	25	75	100
PEDP	304	Track and Field	4	50	-	50
PEDE	305	Elective:- Health Education, Safety Education and First Aid	4	25	75	100
PEDP	306	Major Games – Specialization II (First Best Game)	4	50	-	50
		Total	22	200	300	500

**FOURTH SEMESTER**

Paper	Core course	Name of the Subject	Credit Points	Internal	External	Total
PEDC	401	Applied Kinesiology and Sports Biomechanics	3	25	75	100
PEDC	402	Rules of Sports, Games and Officiating – II	3	25	75	100
PEDC	403	Exercise and Disease Management (Optional) / Project	4	25	75	100
PEDP	404	Track & Field	5	40	60	100
PEDE	405	Elective:- Theory and Practice of Volleyball and Kabaddi	4	25	75	100
PEDP	406	Major Games – Specialization II (First Best Game)	5	40	60	100
		Total	24	180	420	600



## **PRACTICALS**

Semester	Sub Code	Course code	Name of the subject	Credit points	Internal	External	Total
I	PEDP	104	Track and Field	4	50	-	50
		106	Major Games, specialization I (Second best Game)	4	50	-	50
II	PEDP	204	Track and Field	5	40	60*	100
		206	Major Games, Specialization I (Second best Games)	5	40	60*	100
III	PEDP	304	Track and Field	4	50	-	50
		306	Major Games, Specialization II ( First Best Game)	4	50	-	50
IV	PEDP	404	Track and Filed	5	40	60*	100
		406	Major Games, Specialization II (First Best)	5	40	60*	100

\* One Internal and One External Examiner

The course of study shall be as follows.

### **PESC 101 - SPORTS MANAGEMENT**

#### **MODULE – 1**

**Scope and Concept of Sports Management** : Management – Meaning, Definition – Functions of Sports Management – Importance – Historical Background of Sports Management – Role of Manager and Interpersonal Roles – Manpower planning – Meaning of Recruitment – Sports Organisation.

#### **MODULE – II**

Principles, Nature, Purpose of Organisation – Systems of organization – Leadership: Meaning, Personal traits – Qualities of a Leader – Organization Facilities: Indoor Stadium, Dressing Room, Free Zone, Natures Call Area, Rest Room, Power Room, Water Facilities, VIP Gallery and Media Zone.

#### **MODULE – III**

**Motivation and Public Relations in Sports** : Concepts and Need of Motivation in Sports Organisation – Task as a Motivation – Job feed back – Types of Public Relation – Role of Government, Press, Media –Conference – Finances – Qualities of Good Public Relation Organisation.

#### **MODULE – IV**

**Guidance and Counseling** : Vocational Guidance: Concepts, Objective and Need – Strategies for Vocational Guidance: Principles – Approaches – Career Talk – Industrial visit - Purpose – Types of Social Problems – Social Needs and Social Life. Personal Guidance : Concepts, Purpose – Emotional Characteristics of Adolescents.

## **MODULE – V**

**Finance and Budget for Sports** : Infrastructure – Equipment – Salaries and Wages – Raising of Funds – Budget, Record maintenance and Purchase of Equipment. – Advantages – Essentials – Types of Budget – Research and Development – Funds Collection prices.

## **REFERENCE BOOKS:**

1. S.S. Roy, "Sports Management" : New Delhi : Friends Publications, 1995.
2. Samiran Chakrabarty, "Sports Management" : Delhi: Sports Publications : 1998.
3. Janet A. Wessel and Luke Keely, "Achievement Based Curriculum Development in Physical Education" : Philadelphia : Lea & Febiger, 1986.

## **PESC 102 - SPORTS PSYCHOLOGY AND SOCIOLOGY**

### **MODULE – I**

Meaning and definition of Sports Psychology – The need and importance of Sports Psychology in Physical Education and Sports – General factors affecting Sports Learning and Performance – Developmental Sports Psychology – Motivation of Children and Youth in Sports – Perception – Reaction Time – Movement Time – Reflex Time – Response Time.

### **MODULE – II**

Motor Learning – Tension – Frustration – Depression – Stress - Anxiety – Motivation – Factors influencing motivation – Achievement Motivation – Ways and Means of Motivation – Personality – Meaning – Traits of Sportsmen – Effect of Sports Participation on Personality.

### **MODULE – III**

Meaning and Definition of Sociology - Meaning and Definition of Sports Sociology – Sports and Socialization of the individual – Culture – Sports and Culture – Concepts of Culture – Functions of Culture and Sports – Work- Free time and Physical Culture.

### **MODULE – IV**

Social Institutions – Sports as a Social Institution - Sports and its relationship with Social Institutions - Growth of Commercial sport – Sports and Politics – Sports and Religion – Sports and social stratification – Sports Participation and Career Success – Athletic Retirement and Social Mobility.

### **MODULE – V**

Women in Sports - Sports women in our society – Participation pattern among women – Gender inequalities – Consequence of Sports competition - Evaluation Processes.

## **REFERENCE BOOKS:**

1. John D. Lauther, "Sports Psychology", Englewood, Prentice Hall Inc.
2. Robert N. Singer, "Motor Learning and Human Performance", New York : The Macmillan Co.
3. Miroslaw Vauks and Bryant J. Gatty, "Psychology and the Superior Athlete", London: The Macmillan Co.
4. Robert N. Singer, "The Psychomotor Domain Movement Behaviour" Philadelphia : Lea & Febiger.
5. John D. Lauther, "Psychology Coaching", Englewood Cliffs, New Jersey : Prentice Hall Inc.
6. Bryant J. Cratty, "Psychology in Contemporary Sports". Englewood Cliffs, New Jersey : Prentice Hall Inc : 1983.
7. H.I.A. Whiting K. Karman, L.B. Hendry and M.G. Jones, "Personality and Performance in Physical Education and Sports", Hendry Kimton Publishers, London.
8. Cratty B.J., "Social Dimensions of Physical Activity", New Jersey : Prentice Hall Inc.,

## **PESC 103 - TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION**

### **MODULE - I**

Introduction and Classification of Tests : Meaning of the terms Test, Measurement and Evaluation. Need and Importance of Test, Measurement and Evaluation in Physical Education. Classification of Tests : Objective and Subjective Tests – Standardised and Teacher made Tests – Knowledge and Skill Tests.

### **MODULE - II**

Test Construction and Administration : Criteria of Test Selection : Reliability, Validity- Objectivity – Norms – Administrative Feasibility – Educational Application. Steps involved in construction of skill test and knowledge test. Test Administration : Testing Personnel – Economy of Testing.

### **MODULE - III**

Measurement of Physical Fitness and Motor Fitness. Tuttle Pulse Ratio Test, Harvard Step Test, Cooper's 12 Minutes Run / Walk Test. AAHPER Youth Fitness Test – JCR Test – Kraus – Weber Muscular Fitness Test.

### **MODULE - IV**

Measurement of Motor Fitness, Motor Educability, Posture and Anthropometry :  
Motor Ability : Barrow Motor Ability Test – Newton Motor Ability Test – Cozen's Athletic Ability Test. Motor Educability : Johnson Motor Educability Test – Metheny – Johnson Test.  
Posture : New York State Posture Rating Test. Anthropometric Measurements : Measurement of Length – Girth – Circumference – Skinfold.

## **MODULE – V**

### **Skill Tests :**

- Badminton – Lockhart & McPherson Test – Miller wall Volley Test.
- Basketball - Johnson Basketball Ability Test – Leilich Basketball Test.
- Hockey - Schmithal – French Field Hockey Test – Friedel Hockey Test.
- Football - More – Christain General Soccer skill test, McDonald Soccer Test.
- Handball - Oregon Handball Test – Cornish Handball Test.
- Tennis - Broyer – Miller Tennis Test – Dyer Backboard Test.
- Volleyball - Brady Volleyball Test – Russell Lange Volleyball Test.

## **REFERENCE BOOKS:**

1. Harrison H Clarke. “Application of Measurement to Health and Physical Education”, New Jersey : Prentice Hall Inc. 1987.
2. Donald K Mathews, “ Measurement in Physical Education”. London: W. B. Saunders Company. 1978.
3. Harold M Barrow, and Mc Gee. Rosemary. “A Practical Approach to Measurement in Physical Education”. Philadelphia : Lea and Febiger. 1979.
4. James S Bosco and William F Gustafson. “Measurement and Evaluation in Physical Education, Fitness and Sports”. New Jersey : Prentice Hall Inc. 1983.
- 5 Barry L Johnson and Jack K Nelson. “Practical Measurements for Evaluation in Physical Education”. New Delhi : Surjeet Publications. 1982.

## **PESC 201 - RESEARCH METHODS IN PHYSICAL EDUCATION AND SPORTS**

### **MODULE – I**

Introduction to Research : Meaning and Importance of Research – Scope of Research in Physical education and sports. Types of research : Basic, Applied and Action Research. Research Problem : Criteria of Locating a Problem – Characteristics of good research – Problem – Delimiting and Limiting a Problem. Hypothesis : Meaning and Formulation of Research Hypothesis. Literature Search : Need to survey related literature – Major Literature Sources.

### **MODULE – II**

Methods of Non Laboratory Research - Survey and Historical: Survey Research : Survey by questionnaire and interview – Opinion assessment and Observation method – Survey of infrastructure and physical education programmes. Historical research : Primary and Secondary sources of data – Internal and External criticism – Steps involved in historical research.

### **MODULE – III**

Philosophical Studies – Aims and objectives – Nature of Philosophical Methods – The critical thinking continuum – Case studies on individuals, institutions and organisation – Profiles - Methods of data collection for case study.

## **MODULE – IV**

Variables and Experimental Research Design – Variables : Independent, Dependent, Extraneous and Intervening variables. Experimental Control. Characteristics of experimental research. Experimental Design : Random group, Related group, Repeated Measures, Rotated group, Factorial and Static Group, Comparison design.

## **MODULE – V**

Physical Education Research and project format. Areas of Research: Exercise Physiology – Sports Biomechanics – motor learning – growth and development – Sports Psychology. Use of Computer for Physical Education Research. Thesis format : Organisation of thesis chapters – Preparation of Research report.

## **REFERENCE BOOKS :**

1. David H Clarke, and Clarke H. Harrison. “Research Processes in Physical Education”. New Jersey: Prentice Hall Inc. 1984.
2. T.A Baumgartner, and Strong, C.H. “Conducting and Reading Research in Health and Human Performance”. New York: Brown and Benchmark: 1994
3. C.R Kothari. “Research Methodology Methods and Techniques”, New Delhi: Wiley Eastern Limited, 1993.  
Anne Rothstein. “Research Design and Statistics for Physical Education”. New Jersey: Prentice Hall Inc. 1985.
4. John W Best,. and Khan, James V. “Research in Education”. New Delhi: Prentice Hall of India Private Limited. 1992.

## **PESC 202 - STATISTICS IN PHYSICAL EDUCATION**

### **MODULE – I**

Need and Importance of Statistics – Types of Statistical Processes – Descriptive, Comparative, Relationship, Inferential and Predictive – Quantitative data – Attributes and Variables – Continuous and Discontinuous – Role of Statistics in Research.

### **MODULE – II**

Measures of Central Tendency ( Ungrouped and Grouped ) – Mean, Median and Mode – Computation Merits, Demerits and Uses of Measures of Central Tendency – Measures of Variability ( Ungrouped and Grouped) – Range, Standard Deviation, Quartile Deviation and Mean Deviation – Computation. Merits, Demerits and Uses of Measures of Variability. Percentiles and Deciles – Meaning, Uses and Computation.

### **MODULE- III**

Normal Curve – Definition – Measuring Binomial Expansion – Properties, Skewness, Kurtosis, Correlation – Measuring, Computation and Uses. Pearson Product Moment Correlation, Rank Difference – Method Correlation.

## **MODULE – IV**

Standard Scales – T Scale, 6 Sigma Scale, Hull Scale and Z Scale – Purposes, uses and Computation. t – Ratio, Level of Significance. Type I error, Type II error. Null hypothesis. Sampling theory, Different sampling procedures, Reliability and factors affecting Reliability.

## **MODULE – V**

Line Diagram, Bar Diagram – Simple, Comparative composite and Percentile diagram, Pie Diagram – Simple, Comparative composite and Percentile, Histogram, Frequency Polygon, Ogive Curve. Concept of Analysis of Variance and Covariance.

### **Reference:**

1. David H Clarke and H. Harrison Clarke. “Research Processes in Physical Education, Recreation and Health”. Englewood Cliffs, New Jersey: Prentice Hall Inc. 1970.
2. Harry E. Garre. “Statistics in Psychology and Education”, Bombay : Allied Private Ltd. 1958.

## **PESC 203 - RULES OF SPORTS AND GAMES AND OFFICIATING - I**

### **MODULE – I**

Planning, Construction and Marking of Standard and Non-Standard Track – Arc start – Double arc start – Computation of R.D.R – Stagger distance and Diagonal Excess – Marking of Shotput and Discus throwing sector – Long Jump and High Jump, Runway and Landing area.

### **MODULE – II**

Duties of Management Officials – Competition Officials – Additional Officials – Officials and their duties for Track Events – Field events and Combined events.

### **MODULE – III**

Rules and their Interpretations of Track Events (Sprint, Middle and Long Distances) – Field Events (Shotput – Discus throw – Long Jump and High Jump) and combined event (Heptathlon).

### **MODULE – IV**

History, Origin and development of the game at national and international level – Organizational set up at national and international level for the below mentioned games – Rules and their interpretations – Duties of officials, mechanism of officiating and official signals for the below mentioned games.

## **MODULE – V**

Measurement and markings of the following games: Badminton, Ball badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Khokho, Tennis Weight Lifting, Netball and volleyball – Advantages of different surface of play field for the above games – Clay court, Natural grass, Cinder, Synthetic, Turf and wooden surfaces.

## **REFERENCE BOOKS:**

1. George Immanuel, “Track and Field event layout and Marking”.
2. AAFI Rules Book.
3. R.L. Anand, Play Field Manual Patiala: “NIS Publication”, 1990.
4. H.C. Buck, Rules of Games and Sports, Madras: YMCA Publications, 1992.

## **PESC 301 - EXERCISE PHYSIOLOGY & SPORTS MEDICINE**

### **MODULE – I**

Structure and Function of the Skeletal Muscle: Structure of the Skeletal Muscle – Chemical Composition – Microscopic structure of the myofibril contractile mechanism – Molecular basis of muscular contraction – Sliding filament theory. Fuel / Energy for muscular contraction.

### **MODULE – II**

Neuron – Muscular Junction and Co-ordination of Muscular Activity: Neuron and Motor Unit – Bio-Electrical Potential – Neuro – muscular junction and transmission of nerve impulse – Effect of exercise on different systems of the body : Effect of Exercise on Circulatory system – Respiratory system – Oxygen debt, forced expiratory volume, Breathing capacity, Vital Capacity, Recovery and second wind, Endocrine system (Insulin).

### **MODULE – III**

Work Capacity under Different Environmental Conditions : Hot – Humid – Cold – High Altitude. Competitive sports and sex. Exercise and Ageing – Correction of obesity – Arteriosclerosis and Atherosclerosis.

### **MODULE – IV**

Sports Medicine – Meaning – Importance – The case for Exercise : Childhood and Adolescence – Pregnancy – Obesity – Exercise and Coronary Heart Disease – Exercise and Chronic Disease – Old Age – Cardiac Risk Factors – Risks of Exercise.

## **MODULE – V**

Sports Injury – Safety in Sports – Muscle Injury – Muscle Tears: Partial and Central Muscle Tear – Treatment – Rehabilitation – Cramp – Stiffness – Tendon Injuries – Tendinitis – Total and Partial Rupture – Treatment.

### **REFERENCE BOOKS:**

1. Edward Far, Richard Bowers and Merle Foss, The Physiological Basis for Exercise and Sports, New York : Brown & Benchmark, 1993.
2. Jack H. Wilmore and David L. Costill, Physiology of Sports and Exercise, USA : Human Kinetics, 1994.
3. Thibodean and Patton, “Structure and Function of the Body”, St. Louis Philadelphia: Lea & Febiger.
4. Peter N Sperryn, “Sports and Medicine”, New Jersey : Prentice Hall Inc.,

## **PESC 302 - COMPUTER APPLICATIONS**

### **MODULE – I**

Introduction – Generations – Block diagram of a Computer – Hardware & Software - Input and Output devices - **Memory** : Read Only Memory (ROM) – Random Access Memory (RAM) – Sources of Memory – Floppy Disk – Hard Disk – CPU (Central Processing Unit) – Importance Characteristics of a Computer – Define : Data, Information - Need for Programming Languages and Packages.

### **MODULE – II**

Introduction to Windows – Working with Windows – Advantages of Working in Windows – Desktop – Start Menu – Control Panel – Find – Run - Starting an Application – Moving a window – Changing the Size – Task bars – Control Panel – Clock – Mouse – Shut Down.

### **MODULE – III**

**MS-Word 2007:** Microsoft Office Button -Working with Document – Quick Access Toolbar – Ribbon: Home Tab: Clipboard(Cut, Copy & Paste)-Font- Formatting Paragraphs [Creating Bulleted and Numbered Lists, Align, Indent] – Editing (Find & Replace) - Page Layout Tab : Page setup – Review tab: Grammar & Spelling Checkers –Insert Tab: Tables –Mailing Tab- Mail Merge.

**Internet:** Introduction to Internet – Service Provided through Internet – Search Engines – E-Mail (Sending and Receiving mail) – Web Pages.



## **MODULE – IV**

Using Computers in Various Areas in Physical Education (Research – Biomechanics, Exercise Physiology, Motor Learning and Sports Psychology) – Analyzing the Data Using statistics. (Mean, Median, Mode, SD, Correlation)

## **MODULE – V**

**SPSS Package:** Introduction – Feeding Data – Naming the Variables – Grouping the Data – Computation of Descriptive Statistics – T.Ratio – Correlated and Uncorrelated Methods – Analysis of Variance. Coefficient of Correlation.

## **REFERENCE BOOKS :**

1. Annie L. Rothstein, “Research Design & Statistics for Physical Education Englewood Cliffs : Prentice Hall Inc., 1985.
2. Maria Langer, “ Word for Windows “ : Peachpit Press, Berkeley.
3. Bott Special Edition using Microsoft 2007, Pearson Education India.
4. Peter Norton “Introduction to Computer”, 6<sup>th</sup> Edition, Tata Mcgraw Hill.
5. Ashok N. Kamathane “Computer Programming”, Pearson Education India.

## **PESC 303 - SPORTS TRAINING METHODS**

### **MODULE – I**

Basic Principles of Training – Specificity, Overload, Reversibility. Basic Physical fitness components – Strength, Speed, Endurance, Mobility. Types of Strength, Strength development training – General exercises, special exercises, competition specific exercises. Training for the development of maximum strength. Elastic Strength, Strength Endurance. Unit Construction for strength development.

### **MODULE – II**

Speed – Definition, factors influencing speed, Training for speed development, Unit construction – Activity other than running, Speed barrier, Speed endurance. Endurance: Types of Endurance – Types of Endurance Training – Duration, Repetition, Competition and Testing. Short term, Medium Term and Long Term Endurance Training. Factors to be considered for Endurance Training.

### **MODULE – III**

Mobility – Definition, Classification, Factors Influencing Mobility – Role of Mobility – Training to develop Mobility – Mobility unit Construction, Periodization – Meaning, Single Periodization, Double Periodization. Different seasons – preparatory, pre competition. Competition and Transitional Period.

## **MODULE – IV**

Meaning of the terms Unit, Session, Micro Cycle, Meso Cycle and Macro Cycle. Warming up – General and Specific – Limbering down – Special type of training – Plyometric Training – Parcourse Training, Mass Practice, Distributed Practice.

## **MODULE – V**

Ergogenic Aids – Meaning, Effect of Drugs – Alcohol, Caffeine- and Smoking on performance. Blood doping, anabolic steroid, Drug abuses in athletics. Effect of climatic Changes – High altitude Training for Long Distance runner. Effect of aerobic endurance training on Heart rate, Heart size, Blood Pressure, Blood Distribution, Lungs Volume, Respiratory Rate, Maximal Oxygen uptake and Lactic Acid.

## **REFERENCE BOOKS :**

1. Frank W.Dick, Sports Training Principles, London, Lepus Book Co.,1980.
2. Hardayal Singh, Science of Sports Training, D.V.S Publication, New Delhi. 1995
3. Dietrich Harre, Principles of Sports Training, Berlin Sportverlag, 1982.

## **PESC 401 - APPLIED KINESIOLOGY AND SPORTS BIOMECHANICS**

### **APPLIED KINESIOLOGY**

#### **MODULE – I**

Meaning and definition of Kinesiology. Role of Kinesiology in physical education and sports. Functions of the Skeleton - Bones of the Body – Classification of Joints and Its structure – Kinds of joint movement and range of motion.

#### **MODULE - II**

Muscles: Types of Muscles – Role of Muscles – Kinds of Muscle Actions – Mechanics of muscles- Co-ordinated action of Muscles – Muscles function in relation to Posture.

#### **MODULE – III**

Origin, Insertion and action of the following muscles ; Trapezius – Deltoid – Biceps – Triceps – Pectoralis major – Pectoralis minor – Rectus abdominis – Rectus femoris – Sartorius – Quadriceps group of muscles – Latisimus dorsi – Gluteus maximus – Hamstring group of muscles – Gastrocnemius.

### **SPORTS BIOMECHANICS**

#### **MODULE – IV**

Biomechanics : Meaning – Definition – function. Linear Kinematics – Distance and Displacement – Speed and Velocity – Acceleration – Angular

Kinematics – Angular Speed and Velocity – Linear and Angular Kinematics. Need and Importance of Biomechanics in Sports.

### **MODULE – V**

Linear Kinetics : Meaning and Definition – Inertia – Mass force – Internal and External factors of force – Newton’s law of motion – Law of Gravitation – Momentum – Work – Power – Energy – Stability – Various Degrees of Stability – Angular Kinetics – Levers – Centre of Gravity. Special factors affecting Sports Performance. Analysis of Skills and Techniques.

### **REFERENCE BOOKS:**

1. Luttgens and Wells. Kinesiology, “Scientific Basis of Human Motion”, Philadelphia: Saunders College Publishing Co., 1991.
2. Jenson, R. “Applied Kinesiology and Biomechanics” New York : McGraw Hill Book Co. 1987.
3. Johnson R. and Schulky, W. “Applied Kinesiology”. Philadelphia: Saunders College Publication Co., 1989.
4. James G Hay. The Biomechanics of Sports Techniques. New Jersey : Prentice Hall Inc. 1985.
5. John W Bunn, Scientific Principles of Coaching. New Jersey : Prentice Hall Inc., 1985.
6. Kreighbawn, E and Barthels, K.M. Biomechanics : “A Quantitative Approach for Studying Human Movement”, Minneapolis : Burgess Publishing Co., 1981.

### **PESC 402 - RULES OF SPORTS AND GAMES AND OFFICIATING - II**

#### **MODULE – I**

Specifications and Markings of Hurdles (low & High) – Relay Races – Triple Jump – Pole Vault and throwing Hammer.

#### **MODULE – II**

Rules and their interpretations of Hurdle Races, Relay Races – Triple Jump – Pole Vault – Throwing the Hammer and Decathlon.

#### **MODULE – III**

Duties and Responsibilities of the Officials – Management Officials – Competition Officials and Additional Officials – Combined event officials.

#### **MODULE – IV**

History, Origin and Development of the Game at National and International level – Organisational set up at national and International level for the below mentioned games – Rules Measurement and Marking of the following Games - Rules and their interpretations – Duties of Officials – Mechanism of officiating and official signals and Organisational setup at National and International level for the below mentioned games.

## **MODULE – V**

Measurement and marking of the following games: Badminton, Ball Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Tennis, Weight Lifting, Netball and Volleyball – Advantages of different surface of play field for the above games – Clay Court, Natural Grass, Cinder, Synthetic, Turf and Wooden surfaces.

### **REFERENCE BOOKS:**

1. George Immanuel, “Track and Field Event Layout and Marking”.
2. AAFI Rules Book.
3. R.L. Anand, Play Field Manual, Patiala, NIS Publication, 1990.
4. H.C. Buck, Rules of Games and Sports, Madras, YMCA Publications, 1992.

## **PESC 403 - EXERCISE AND DISEASE MANAGEMENT (OPTIONAL)/PROJECT**

### **MODULE – I**

Heart Diseases : Definition of Coronary artery disease, Congestive Heart disease, Valvular Disease – Background – Management – Exercise Issues – Exercise Prescription for Heart Diseases – Weight Training guidelines for Heart Diseases.

Chronic Lung disease and Asthma – Definition. Background – Management – Exercise Prescription for chronic lung Diseases and Asthma – Weight Training guidelines for Lung Diseases.

### **MODULE – II**

Meaning and Definition of Blood Pressure – Background Hypertension and Cardiovascular Diseases – Cerebro Vascular Diseases – Hypertensive Renal Diseases – Coronary Artery Disease – Classification of Hypertension – Complications of Hypertension – Evaluation of Hypertension – Management and Exercise Guidelines of High Blood Pressure.

### **MODULE – III**

Meaning and Definition of Diabetic: Classification of Diabetic – Diagnosis – Symptoms – Complications of Diabetic – Diet Therapy – Exercise issues for Type 1 and 2 - Glucose Monitoring and Exercise.

Meaning and Definition of Obesity – Improved Food Guide Pyramid – Management – Exercise Issues – Exercise Prescription for Obesity.

### **MODULE – IV**

Meaning and Definition for Arthritis – Background – Management – Exercise Issues.

Meaning and Definition of AIDS and Cancer – Exercise Prescription for AIDS and Cancer – Weight Training Guidelines.

Exercise Recommendations for Physically Inactive Individuals – Training Guidelines for Physically inactive individuals.

## **MODULE – V**

Need and Importance of Exercise in Healthy Elderly – Healthy Child .

**Pregnancy:** Background – Exercise Issues – Weight Training Guidelines for Healthy Elderly.

Background – Exercise Issues – Weight Training Guidelines for Healthy Child.

Background – Exercise Issues – Weight Training Guidelines for Pregnancy.

## **REFERENCE BOOKS :**

1. Brain C. Leutholtz and Ignacio Ripoll, “Exercise and Disease Management”, New York : CRC Press, 1999.
2. Jackson Gardon, “Fitness and Exercise”. London : Salamander Books Limited, 1985.
3. Guyton, “Text Book of Medical Physiology”. W.B Saunders Company.
4. Larry G Shaver, “Essentials of Exercise Physiology” : Delhi : Surjeet Publications 1982.

## **ELECTIVE COURSE** **PESE – 105 ( I SEMESTER)**

### **HISTORY, PRINCIPLES AND FOUNDATIONS OF PHYSICAL EDUCATION**

#### **MODULE – I**

Physical Education in India. Y.M.C.A. and its contributions – All India Council of Sports, Central Advisory Board of Physical Education and Recreation – Coaching Schemes . National Physical Efficiency drive – S.N.I.P.E.S. – S.A.I. – L.N.U.P.E., N.I.S., National Federations – International Competitions.

Physical Education in Ancient Greece, Athens – Ancient Olympic Games – Physical Education in U.S.A. Germany and – Modern Olympic Games.

#### **MODULE – II**

##### **Philosophical Foundations**

Meaning of Education and Physical Education – Aims and objectives of Physical Education – Philosophy of Education and Physical Education – Contribution from other sciences.

#### **MODULE – III**

##### **Traditional Schools of Philosophy.**

Idealism – Naturalism – Pragmatism – Realism – The Art and Science of Physical Education.

#### **MODULE – IV**

##### **Biological Foundations of Physical Education**

Evaluation – Growth and Development – Heredity and Environment – Difference between boys and girls during adolescence – unsynchronized development – body types according to Sheldon and Kretschmer – Body mechanics.

## **MODULE – V**

### **Sociological Foundations of Physical Education**

Social environment for the development of individual personality – Social motivation – spectator value of sports – Group dynamics – Sports and Social recreation – Development of desirable social qualities – Leadership – National Integration – Cultural values of sports – international values.

#### REFERENCE BOOKS

1. Charles A. Bucher, “Foundations of Physical Education”, New Delhi : Friends Publications 1994.
2. Rajagopalan, “A Brief history of Physical Education in India”.
3. Van Dalon, “A World History of Physical Education”, New Jersey : Prentice Hall Inc, 1953.
4. Leonard and Afflock, “History of Physical Education”.
5. C. Thirunarayanan and S. Hariharan, “An Analytical History of Physical Education”, CT & STH Publications.

### **ELECTIVE COURSE**

PESE – 205 (II SEMESTER)

### **THEORY AND PRACTICE OF CRICKET AND TENNIS**

#### **MODULE – I**

History and development of the game in India and abroad, court dimension, laying, marking, maintenance of Grounds.

#### **MODULE – II**

Fundamental skills, teaching and coaching with lead up games.

#### **MODULE – III**

Team tactics – offensive and defensive formation individual attack, group attack: Individual defense, Group defense: New trends and formation.

#### **MODULE – IV**

Selection of teams, teaching, coaching, competitions, drawing fixtures, scouting, clinics – results.

#### **MODULE – V**

Rules and regulations of the game, latest changes in rules, interpretation, officiating techniques, score sheet.

#### **Reference Books:**

1. Rowland Bown, "Cricket: A History of its Growth & Development Throughout the World", London : Eyre & Spottiwoode Publishers Ltd., 1970.
2. S. Sivaramakrishnan & R. Kalidasan, "Behind the Wickets – A Wicket Keeping Coaching Manual, Tamilnadu: Sathya and Sakju Publications, 1998.
3. Apple Whaite, Charles and Bill Moss : Tennis – The Skills of the Game", Marlborough: The Crowood, 1987.
4. Douglas Paul, " The Handbook of Tennis", London : Pelham Books Limited, 1982.

## **ELECTIVE COURSE**

PESE – 305 (III SEMESTER)

### **HEALTH EDUCATION, SAFETY EDUCATION AND FIRST AID**

#### **MODULE – I**

Meaning of Health – Definitions, Need for health education for an individual. World Organization and its importance – National and state level health organizations – Voluntary health organizations and facilities – Need for health personnel and facilities.

#### **MODULE – II**

Nutrition and Health – Elements of good nutrition – Balance diet – Food handling – Food poisoning – Causes of overweight – Effects of overweight – Effects of diet – Exercise.

#### **MODULE – III**

Meaning of Mental Health – Emotional Health – Adolescent Problems – Adjustment – Prevention of Adolescent – Mental Problems – Psychological well being, Protected drinking water – Sewage and Garbage disposal – Communicable diseases and their causes – symptoms and prevention of Health problems – Alcohol, smoking narcotics and drugs.

#### **MODULE – IV**

Factors affecting safety at home – Environment - furniture and fixtures – Electrical Connections – Bathroom and lavatory – Kitchen – Principles of movements in daily life. Safety by roads – Camps – Picnics – Tours. Safety in water – Fire, floods – Hurricane – lightning.

#### **MODULE – IV**

First Aid – Definition, Meaning – Treatment for shock, poisoning – drowning – Bleeding – Fractures – Sprain: Strain – Dislocation – Artificial respiration.

#### **REFERENCE BOOK**

1. Diehl Harold, "Health and Living", London: Mc Graw Hills Book Company, 1977.

2. Thygerson Alton L, "Essentials of Safety (3<sup>rd</sup> Edn)", New Jersey : Prentice Hall Inc., 1972.
3. St. John Ambulance and St. Andrew's Ambulance, "First Aid Manual", London : Dorling Kindersley, 1990.
4. Stanley Miles, (ed), "First Aid – An Elementary and Advanced Course of Training", (6<sup>th</sup> edn), London : Bailliere, Tindall & Cassell, 1970.

## **ELECTIVE COURSE**

PESE – 405 (IV SEMESTER)

### **THEORY AND PRACTICE OF VOLLEY BALL & KABADDI**

#### **MODULE – I**

History and development of the game in India and abroad, court dimension, laying, marking maintenance of grounds.

#### **MODULE – II**

Fundamental skill, teaching and coaching with lead up games.

#### **MODULE – III**

Team tactics – offensive and defensive formation individual attack, group attack; Individual defense, Group defense; New trends and formation.

#### **MODULE – IV**

Selection of teams, teaching, coaching, competitions, drawing fixtures, scouting, clinics – results.

#### **MODULE – V**

Rules and regulation of the game, latest changes in rules, interpretation, officiating techniques, score sheet.

#### **Reference Books:**

1. Gurubakhah S Sandhu, "Volleyball – Basic Advanced, Chandigarh – The Sports People Publisher's of Sports Literature, 1982.
2. Ashok Kumar, "Volleyball", New Delhi : Discovery Publishing House, 1999.
3. C.V. Rao, "Kabaddi – Native Indian Sport", Patiala: NIS Publications, 1983.

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