


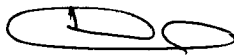
UNIVERSITY OF RAJASTHAN,
JAIPUR

Master of Physical Education

(M.P.E.) (Annual session)

2013-2014


10-10-13


10/10

Session 2014

(Annual)

**MASTER DEGREE IN PHYSICAL EDUCATION
M.P.E. (Previous)**

M.P.E. (PREVIOUS)		INTERNAL MARKS				Total Marks
Papers	Univ.Exam. Marks	Terminal I	Terminal II	Project		
I	Research Methods and Statistics	70	10	10	10	100
II	Professional Preparation and Curriculum in Physical Education	70	10	10	10	100
III	Sports Training	70	10	10	10	100
IV	Measurement and Evaluation in Physical Education	70	10	10	10	100
V	Computer Application	75			25	100
					TOTAL	500
MASTER DEGREE IN PHYSICAL EDUCATION M.P.E. (Final) Any four to be selected:						
I	Exercise and Sports Physiology	70	10	10	10	100
II	Management of Physical Education and Sports	70	10	10	10	100
III	Health Education	70	10	10	10	100
IV	Sports Medicine	70	10	10	10	100
V	Psychology of Physical Education and Sports	70			25	100
VI	Sports Sociology	70	10	10	10	100
VII	Dissertation Practical	100				100
					TOTAL	500

Note: Total Working days: 120

Theory Classes : 3 periods of 50 minutes of every working day. One period compulsory. one Match practice in the following games only. (1. Athletics. 2. Basketball. 3. Cricket. 4. Football. 5. Hockey & 6. Volleyball.)

Practical Examinations:

1. 50 Marks for external examinations in M.P.E. (Previous) will consist lessons of 25 marks each. One lesson will be of candidate's choice and one lesson will be by lot out of following games:
2. Distribution of 50 marks for Internal Examinations will be as follows:
 1. Athletics 10 Marks
 2. Basketball 08 Marks
 3. Cricket 08 Marks
 4. Football 08 Marks
 5. Hockey 08 Marks
 6. Volleyball 08 Marks

Practical for Masters Degree in Physical Educations: Final Year

For Exam - 2013

Answer

Syllabus : Master's Degree in Physical Education • 3

MASTER DEGREE IN PHYSICAL EDUCATION

M.P.E. (Previous):		INTERNAL MARKS				
Papers		Univ. Exam. Marks	Termi- nal I	Termi- nal II	Project	Total Marks
I	Research Methods and Statistics	75	10	10	5	100
II	Professional Preparation and Curriculum in Physical Education	75	10	10	5	100
III	Sports Training	75	10	10	5	100
IV	Measurement and Evaluation in Physical Education	75	10	10	5	100
	Practical	50(External)		50(Internal)		100
M.P.E. Final : Any four to be selected:						
I	Exercise and Sports Physiology	75	10	10	5	100
II	Management of Physical Education and Sports	75	10	10	5	100
III	Health Education	75	10	10	5	100
IV	Sports Medicine	75	10	10	5	100
V	Sports Psychology	75	10	10	5	100
VI	Sports Sociology	75	10	10	5	100
VII	Dissertation	100				
	Practical	50(External)		50(Internal)		100
						500

Note : Total Working days : 120

Theory Classes : 3 periods of 50 minutes of every working day. One period compulsory, one Match practice in the following games only. (1. Athletics, 2. Basketball, 3. Cricket, 4. Football, 5. Hockey & 6. Volleyball)

Practical Examinations:

- 50 Marks for external examinations in M.P.E. (Previous) will consist lessons of 25 marks each. One lesson will be of candidate's choice and one lesson will be by lot out of following games:
- Distribution of 50 marks for Internal Examinations will be as follows:

1. Athletics	10 Marks	
2. Basketball	08 Marks	
3. Cricket	08 Marks	50 Marks
4. Football	08 Marks	
5. Hockey	08 Marks	
6. Volleyball	08 Marks	

Practical for Masters Degree in Physical Educations: Final Year

x. V Computer Application

— 100

x. psychology of physical education and sports

1. 50 Marks in external examinations in one specialization lesson.
2. 50 marks in the Internal Examination

Note: In place of word 'Thesis', 'Dissertation' of 100 marks to be awarded by the external examiners as per the University rules, will be given. No viva-voice will be held

M.P.E. (PREVIOUS)

Paper I : Research Methods and Statistics

Unit-I

Meaning of Research, Need and Importance and its scope in Physical Education. Types of Research, Survey of Related Literature-Need for Library Search, Library Sources, Preparation of Bibliography and Abstracts, Formulation and Development of Research Problem: Location of Research Problem-Criterion in Selecting the Research Problem, Formulation of Hypothesis.

Unit-II

Historical Research : Scope of Historical Research in Physical Education, Historical evidence. Validity of historical data. Survey Studies : Place of Survey Research in Physical Education. Tools of Survey Research; Questionnaire and Interviews. Case studies : Definition of Case studies. Importance of Case studies. Characteristics of Case studies. Data collection in Case studies. Experimental Research : Meaning, Scope and nature, control of Experimental factors, Experimental Designs, Philosophical Research : Brief Introduction.

Unit-III

What is Statistics? Its definition and use in Physical Education and Sports Research. Normal Curve : Definition and Principle of normal curve, relation between binomial and normal curve, properties of normal curve, skewness, Kurtosis, standard scales : Percentile Z, T, 66 and 76 scales, Standard scores.

Unit-IV

Statistical Inference: Reliability limits, factors affecting reliability t.F. and Z Statistics, Null hypothesis, Type I and II errors, One tail and two tailed tests. Sampling : Sample and stratified random sampling, standard error, coefficient of variation and sampling error.

Unit-V

Analysis of Variance:

- (a) One way analysis of variance, with equal and unequal sample sizes. LSD and Scheffes Test. Introduction to Computer Analysis.
- (b) Research proposal and preparation of Research report.

References:

1. Best, John W. : Research in Education, New Delhi : Prentice Hall of India (P) Ltd., 1963.

2. Campbell, William G. : Form and Style in Thesis Writing, Borston: Houghten Meffin Company, 1954.
3. Clarke David H. and Clarke H. Harrison : Research Process in Physical Education. Recreation and Health. Englewood Cliffs, N.J. Prentice Hall Inc., 1979.
4. Good, V. Carter and Scates, Dauglas E. : Methods of Research. Appleton-Century-Crofts : New York, 1954.
5. Mouly, George J., : The Science of Educational Research, New Delhi Eurasia Publishing House (P), 1963.
6. Robson M. Brar T.S. and Uppal A.K.: These Format. Gwalior : LNCPE. 1979
7. Blommers Paul and Lindquist, E.F.: Statistical Methods in Psychology and Education, Calcutta : Oxford Book Co., 1959.
8. Garret. Harry E. and Goodworth R.S. : Statistics in Psychology and Dolucation, Bombay : Allied Pacific Private Ltd., 1958.
9. Guilford, J.P. : Fundamental Statistics in Psychology Education, New York: McGraw Hill Book Co. Inc., 1956.
10. Steel, Robbert G.D. and Torrie, James A.: Principles and Procedures of Statistics. New York : Gram Hill Book Co.
11. Verma J. Prakash : Test your Concepts in Statistics.

Paper II : Professional Preparation and Curriculum Designs

Unit-I

1. Foundation of Professional Preparation:
 - (a) Ideals of Indian Democracy- Contribution of Physical Education.
 - (b) Forces and Factors affecting educational policies and programmes, Social, religious, Economic, Education.
 - (c) Education and Professional Preparation in Physical Education.
 - (d) Role of the Central government in Education and Professional Preparation.
 - (e) Professional Association, How Physical Education is a Profession.
2. Professional Preparation in Physical Education.
 - (a) Historical review of Professional Preparation in India.
 - (b) Comparative study of Professional Preparation in Physical Education in India with those of U.S.A., Germany and U.K.

Unit-II

1. Undergraduate Preparation of Professional Personnel Areas of Health Education. Physical Education and recreation - Purpose of Undergraduate Preparation. Admissions, Curriculum - Laboratory experi-

ences. Field Experiences, Teaching Practice, Professional Competencies to be developed - facilities and special resources for library.

2. Post-graduate Preparation of Professional personnel, purpose of post-graduate studies. Admission requirements, Sports specialisation and concentration on Core Areas, Research requirements, Methods of Instruction.

Unit-III

1. Importance of curriculum development, Factors affecting curriculum, changing needs of students, National and Professional policies.
2. The role of the teacher in curriculum development.
3. Principles of planning-Understanding the capacity, characteristics and needs of the learner. Evaluation and follow-up.
Selecting material for instruction-Classification of activities in Physical Education, the outcome of each class of activity, suitability of activities for different age groups and sexes. Progress in curriculum cultural influence in the choice of activities flexibility of programme material.

Unit-IV

1. Selecting methods of teaching-grouping of students for instruction, Lectures, project activities, demonstration, block of period, total time allotment for a given activity, teaching aids, conditioning special gadgets to concentrate on development of particular skills, bring up pre-requisites for learning a given skill or activity, provision for individual differences.
2. Development Programme for different levels of education Kindergarten, elementary school, middle school, 10 plus 2 school, College and University. special institution (technical school, orphan hostel) special days, national days etc.
3. Relationship of Physical Education to allied areas. Health Education, Recreation, Outdoor activities, inter-school tournaments.

Unit-V

1. Co-education in Physical Education-Integrating the programmes for boys and girls, activities suitable for co-education needs, level at which co-education is desirable, special provision for development of girls programme.
2. Committee recommendation - NCERT, CBSE, UGC recommendations on curriculum for school and college, curriculum followed in colleges of Physical Education- B.P.E, B.P.E. Diploma in Physical Education, M.P.E. and M.Phil.
3. International Charter of Physical Education.

Books Recommended:

1. Pape. A Laurence. Means. E. Louis : A Professional Carred in Physi-

- cal Education (Englewood Cliffs, N.J. : Prentice Hall Inc., 1963)
2. Jansen R. Clayne : Administrative Management of Physical Education and Athletic Programme (Philadelphia : Lea and Fibiger, 1983).
 3. Snyder and Scott : Professional Preparation in Health, Physical Education and Recreation (Connections. Greenwood Press, Westpote, 1971).
 4. Bucher C.A. : Foundations of Physical Educations (Saint Louis : The C.V. Mosby Company, 1975) Edit.7.
 5. Agarwal J.C. : Education Administration School Organisation and Supervision (New Delhi : Agra Book Depot, 1967).
 6. Gattu, J. Rryant : Carrer Potential Physical Activity (New Jersey : Englewood Cliffs, Prentice Hall Inc., 1971).
 7. Willgoose, E.Carl : The curriculum in Physical Education (New Jersey : Englewood Cliffs, Prentice Hall Inc., 1979) Ed.3.
 8. Irwin, W. Lestia : "Curriculum in Health and Physical Education" (St. Louis : The C.V. Mosby Company, 1984)

Paper III :Sports Training

Unit-I

Sports Training

- (a) Definition of terms-conditioning, training and coaching.
- (b) Aim, Tasks and characteristics of Sports training.
- (c) Principles of Sports Training.

Training Load:

- (a) Important Features of Training Load-Intensity, Density, Duration and Frequency.
- (b) Principles of Training Load.
- (c) Adaptation Process and condition of Adaptation.
- (d) Overload-causes and symptoms-Tackling of overload.

Unit-II

Training for Motor Components:

- (i) (a) Strength-forms of strength, characteristics of strength, Principles of Strength training, means and methods strength training for children and women.
- (b) Form of endurance, characteristics of endurance, endurance training means and methods.
- (c) Speed : Forms of speed, characteristics of speed, be is of speed training means and methods.
- (d) Flexibility - Forms of flexibility, characteristics of flexibility, basis of flexibility methods of development of flexibility.
- (e) Co-ordinative Abilities-Characteristics of Coordinative abilities, importance of coordinative abilities, classification of

coordinative abilities, Training methods.

- (ii) Training for motor components for children and women.

Unit-III

(a) Technique

- (1) Definition of skill, Technique and Technical Training.
- (2) Characteristics of Technique
- (3) Phases of skill acquisition
- (4) Methods of Technique Training
- (5) Causes and correction of faults

(b) Tactics:

- (1) Definition of tactics and strategy
- (2) Basic Tactical Concepts - Offensive, Defensive and High Performance.
- (3) Methods of Tactical Training
- (4) Control of Tactical Knowledge

Unit-IV

(a) Planning and organisation of Training

- (1) Importance of Planning
- (2) Principles of Planning
- (3) System of Planning
- (4) Periodisation and its types
- (5) Contents for various periods of Training

(b) Competition Planning and Preparation

- (1) Importance of Competitions
- (2) Competition Frequency
- (3) Main and Build-up competitions
- (4) Direct preparation for an important competition

Unit-V

Evaluation of Training

- (1) Items to be included in evaluation programme
- (2) Uses of graphs and principles of graphical representation
- (3) Forms of diagrams used for evaluation checking progress
- (4) Rules governing performance checks and motor tests

References:

1. Hans, Dietrich : Principles of Sports Training (Berlin : Sportuelag, 1982)
2. Dick W. Frank : Sports Training Principles (London : Lepus Books, 1980)
3. Jensea, R.Clayne and Fisher A.G. : Scientific Basic of Athletic Conditioning (Philadelphia : Lea an Febiger 1979, Second Edition)
4. Matveyew, L.P. : Fundamentals of Sports Training (Moscow : Progress Publishers. 1981) (Translation from Russian)

5. Cratty, J. Bryant : Perceptual and Motor Development in Infants and Children (NJ : Englewood Cliffs Prentice Hall Inc., 1979)
6. Singh, R. : Sports Training General Theory and Methods (Patiala : NISNIS, 1984)
7. Uppal A.K. : Principles of Sports Training (Friends Publications, New Delhi).
8. Singh, Hardayal : Science of Sports Training (DAS Publication, New Delhi)
9. Sharma, Rajkumar : खेल प्रशिक्षण के वैज्ञानिक सिद्धान्त (क्रीडा साहित्य प्रकाशन, नई दिल्ली)

Paper IV : Measurement and Evaluation in Physical Education

Unit-I

Meaning of Evaluation, nature and scope of Evaluation Programme, need and importance of Evaluation in the field of Physical Education. Principles of Evaluation.

Unit-II

Selection and construction of Tests:

- (a) Criteria of Test Selection-Scientific Authenticity (Reliability, Validity, Objectivity, norms) Administrative Feasibility and Educational application. Classification of Tests Standardised and teacher made tests (objective and subjective tests)
- (b) Construction of Text knowledge tests (written tests) and skill tests.
- (c) Suggestions for administering tests. Medical Examination, Testing personnel. Time and testing, Economy of testing, Test records, Preparation of reports, construction of table groups, purpose of reporting. Justification of particular phases of the Programme worth of a change in methodology.

Unit-III

Measurement of Organic Functions, Motor Fitness and General Motor Ability.

- (a) Organic functions - Cardiovascular respiratory function, Cooper's 12 minutes Continuous Run/walk Test, Tuttle Pulse ratio tests, Harward step test and its modifications (High School and College level-men and women) Hyman's Cadio-pulmonary Index (CPI).
- (b) Motor Fitness : Oregon Motor Fitness test, JCR T, Canadian Fitness Test, AAHPER Youth Fitness Test, Indiana Motor Fitness test.
- (c) General Motor Ability : Mc-Cloy's General Motor Ability Test Methany-Johnson Test.

Unit-IV

Tests for Strength and skill strength : Roger's Physical Fitness Index and suggested changes in the P.F.I. Test

Skill : Volleyball-Brady test, Russel and Lange test Basketball-johnson

test, Knox test. Soccer-Mc Donald test, Johnson Test. Field Hockey-Harbans Singh Field Ho key Test. Badminton-MillerVolley Test Lockart Mcpherson test. Tennis - Broer Miller test, Dyer tennis test.

Unit-V

Measures of Posture, Anthropometry Social Efficiency and Psychological Factors.

- (a) Measures of Posture-IOV A Posture Test (Cureton's)
- (b) Anthropometric Measurements
 - (i) Girth Measurement-Upper arm, forearm, Calf, Chest.
 - (ii) Width Measurements Biacromial chest illiocrestal, Bicondylar (Femur and Humerus)
 - (iii) Height Measurement- Stature and sitting height.
- (c) Somatotypes - Sheldon's Technique-an introduction.
 - (i) Social Efficiency
 - (ii) Socio-metric Techniques Introduction.
- (d) Psychological factors:
 - (i) Anxiety Scale-Speil-berger's Competitive State-Anxiety Scales.
 - (ii) Eysenck Personality Inventory (H.J. Eysenck and Sybil B.G. Eysenck)

References:

1. Larson, L.A. and Yown, R.D. : Measurement and Evaluation in Physical Health and Recreation Education (St. Lous C.V. Mosby Co. 1957)
2. Mathew, Donald K.: Measurement in Physical Education (London: W.B. Saunders Co. 1973) Edn.5.
3. Clarke, H. David and Clarke Harison, H. : Application of Measurement Physical Education (Englewood Cliffs, Prentice Hall Inc.. 1987) Edn.6
4. Hubbard W. Affred : (Ed.) Research Method in Health Physical Education and Recreation, 3rd Revised Edn. (Washington : D.C. America Association of Health Physical Education and Recreation, 1979)
5. Larson, L.A. : Encyclopaedia of Sports Sciences and Medicine (New York Macmillan Co., 1971)
6. Bosco S. James and Gustafson F. William : Measurement and Evaluation in Physical Education, Fitness and Sports (New Jersey : Englewood Cliffs, Prentice Hall, 1983).
7. Philips D. Allen and Honark E. James : Measurement and Evaluation in Physical Education (New York : John Wiley and Sons, 1978).
8. Barrow M. Harold and Meghee, Rosemary : A practical approach to Measurement in Physical Education (Philadelphia : Lea and

- Febiger. 1979) Edn., 3rd.
9. Johnson L. Barry and Netson K. Jack : Practical Measurement for Evaluation in Physical Education Ist Indian Reprint (Delhi, Surjeet Publication, 1982) Edn., 3rd.
 10. Sodhi. H.S. : Sports Anthropometry (A Kinantropometric Approach ANOVA Publication, 1991).
 11. A.K. Srivastava : Test and Measurement in Physical Education (Amit Brothers Publication. Nagpur, 1995).
 12. Mahesh Bhargawa : Modern Psychological Testing & Measurement (H.P. Bhargawa Books House, Agra, 1999).
 13. C.H.McCloy : Test and Measurements in Health and Physical Education (Friends Publication, New Delhi, India, 2004).
 14. D.K. Kansal : Test and Measurement in Sports and Physical Education (D.V.S. Publications. New Delhi, 1996)
 15. T.A. Baumgartner and A.S. Jackson : Measurement for Evaluation in Physical Education (Dabuque. La win. C. Brown Publishers, 1984).

M.P.E. (FINAL)

Any Four to be selected:

Paper I : Exercise and Sports Physiology

Unit-I

- A- Introduction : Definition of Physiology and Exercise Physiology, Importance and Role of Exercise Physiology in the field of Physical Education and Sports.
- B- Muscle : Structure and Function : A Comparative study of different types of muscles (Voluntary, Involuntary and Cardiac), Chemical Compositic of skeletal muscle. muscle fibre type (Red and White muscle).

Unit-II

- A- Bioenergetics : Fuel for muscular work (ATP). energy of muscular contraction and contractile and biochemical changes during muscular contraction. Heal production and thermodynamics of muscle contraction. Acrobic and anaerobio muscular activ ity.
- B- Neuro muscular junction and coordination of Muscular activity: Neuron and Motor unit transmission of nerve impulse. bio-electric potentials. neuro-muscular junction and transmission of nerve impulse across it. Propioception and Kinesesthesia. Tone. posture and equilibrium.

Unit-III

- A- Physiological changes due to Exercise : Immediate effect of exercise/work on various systems of body. Cardio-respiratory. muscular and thermo-regulatory Systems. Effect of Exercise and Training on (i) heart and circulatory systems. (ii) Respiratory system (A) brief

discussion on other system during rest, sub-maximal and maximal work. Oxygen debt, forced expiratory volume, Breathing capacity. Recovery rate Blood Supply to Skeletal muscle and regulation of blood flow during exercise.

- B- Other Physiological aspects of Exercise and Sports : Concept of Physical Fitness and Physical Training warming-up, conditioning and fatigue, Physiological aspects of development of strength, endurance, skill, speed, agility and co-ordination.

Unit-IV

- A- Basic concept of a balanced diet. Appropriate diet before, during and after athletic performance and the effect of alcohol, drugs and smoking on athletic performance.
- B- Energy cost of various sports activity : Definition of Energy cost, Energy cost of various sports activity and various direct/ indirect methods of assessing them.

Unit-V

- A- Work and Environment. Obesity and Weight Control. Work Capacity under different environmental condition : Hot, humid cold and high altitude, Definition of Obesity, Measurement of body fat by various methods (under water weight and skinfold Measurement) Body weight control, Positive and Negative energy balance.
- B- Dope: History, Definition, Classification, Sign and Symptoms. Procedure and sampling of National & International Level. Use and abuse of Drugs. Effect of alcohol, drugs and smoking on Athletic performance.

References:

1. Guyto, Arthur C. : Test Book of Medical Physiology (Philadelphia: W.B. Saunder Company, 1976)
2. Morehouse, L.E. and Miller, A.T. : Physiology of Exercise (Saint Louis : The C.V. Mosby Company, 1976) 7th Edition.
3. Karpovich, P.V. and Sinning, Wayner E.: Physiology of Muscular Activity (Philadelphia : W.B. Saunders Company, 1971) 7th Ed.
4. Bourne, Geoffery H. : The Structure and Function of Muscles London : Academic Press, 1972.
5. Astrand, P.O. and Rodahl, Karre : Test Book of Work Physiology Tokyo: McGraw Hill Kogakusha Ltd., 1970)
6. Mathew , D.K. and Fox E.L., Physiological Basis of Physical Education and Athletics. (Philadelphia : W.B. Saunders Company, 1976)

Paper II : Management of Physical Education and Sports

Unit-I

Concept of Management, Functions, Principles, Philosophical and his-

torical background of Management, Competency based approaches and implementation in Sports and Physical Education.

Unit-II

Management of Sports in-Schools, College and Universities : Inter-University, District, State and National Level. Indian and International Olympic Associations, Sports Authority of India.

Unit-III

Management of Physical Education Programmes.

- (i) Progressive concepts of Management/Administration Personnel and material Management, Programming for instruction and activities.
- (ii) Hierarchy of education Administration in Central, State and Local authorities and individual institutions in India.
- (iii) Responsibility of General Administrator, Technical Expert, Educational Administrator, Professional Educator and Specialist.
- (iv) Training of Administration-Liberal Education, Group Dynamics, subject Specialisation.

Unit-IV

- (i) Supervision Leadership :
 - (a) Responsibilities for Leadership-Inspection of Physical Education Specialist.
 - (b) Training of Supervision of Physical Education
 1. Personal traits of the Supervisors
 2. Relationship of the Supervision to
 - (i) Administrative Officers
 - (ii) Teachers
- (ii) Functions of the supervisor : Duties pertaining to Administration, Facilities and Equipment, Instruction Special Services, Supervision and Professional Growth.
- (iii) Evaluation of Supervision : Methods, Meaning and Need for Evaluation criteria of Evaluation, follow-up.

Unit-V

- (i) Changed process for the future-Theory and technique. Systems approach, marketing and sponsorship approach for competitive sports. Successful Management in future.
- (ii) Selected problems in Management/Administration Professional Preparation, Professional ethics class discipline and student teaching.
- (iii) Mass movement for health consciousness in the society.

References:

1. Earle F. Zeigler & Gary W. Bowie : Management Competency Development in Sports and Physical Education. (9 Philadelphia : W. Lea and Febiger, 1993)
2. Joseph Bucher and Earnest Koenigeberg : Scientific Inventory

- Management (New Delhi : Prentice Hall of India Pvt. Ltd., 1968)
3. Ashton D. : Administration of Physical Education for Women (New York : The Ronald Press C., 1968)
 4. Bucher C.A. : Administration of Physical Education and Athletic Programme (St. Louis: The C.V. Mosby Co., 1979) 7th Ed.
 5. Daughtrey G. and Woods J.B. : Physical Education and Inframural/ Programmes : Organisation and Administration Philadelphia U.S.A.: W.B. Saunders Co., 1976. 11th Ed.
 6. Fersythe G.E. and Duncan R.C. : Administration of Physical Education (New York : Prentice Hall Inc., 1951).

Paper III : Health Education

Unit-I

- (i) History of Health in India. Concept and various levels of Health Care of india. Medical care in rural and urban areas. Primary Health Centre Concept. Three tier system of Health Care, Health for all by 2000 A.D. : Latest trends in Health Education.
- (ii) Health Education : Its contents and aims. Use of Audio-visual aids, methods of individual group, mass approaches of Health Education.
- (iii) Inter-relationship between different components of Health and Spiritual Health. Role and responsibility of individual, community, state and spectrum of Health. Role of Heredity and Genetics in achieving positive health.
- (iv) Nutrition : Proximate principles and their imbalance. Brief description of nutrients in various Food stuffs and trace elements Milk and foods borne disease.

Unit-II

School Health services and School Health Programme in relation to the following:

- (i) Role of Physical Education Teacher, Principal, Class Teacher, Doctor.
 - Health appraisal : Meaning, aim, method.
 - Medical check-up/examination.
 - Common childhood diseases and their control.
 - First aid, accident & prevention.
 - Mental Health, Dental Health, Eye troubles.
 - Food for children at Primary, Middle and Secondary level.
 - School Health administration and maintenance of records.
 - Preparation of Health Card.
- (ii) Healthful school living under fine clinics and road to health.

Unit-III

Community and Environmental Sanitation:

Water Impurities in water, purification of water and water borne diseases

with reference to worm infestations and Amobiasis Defection of Chlorine in water.

Ideal well and its maintenance, Chlorination of water at camp side.

- Air pollution and its effects on Health Occupational diseases.
- Housing and its problems and Health aspects.
- Light, noise, temperature and radiation, their effects on health.

Unit-IV

Communicable Diseases:

- Natural history of communicable disease. Levels of Prevention: Brief description of following communicable disease and their prevention:
 - Tetanus
 - Tuberculosis
 - Jaundice (Infections-Hetitis)
 - Scabies and common skin infections.
 - Chicken pox, mumps and Measles.
 - Malaria and filaria
 - Rabies (Hydrophobia and animal bite)
 - Sexually transmitted diseases and Aids.
- v. Non-communicable diseases and Evils of community : Brief description of important non-communicable diseases: Population policy, pollution dynamics, population explosion, national family welfare programme, need of sex education, Alcoholism, Drugs habituation-dependence and addition. their prevention and control.

References:

1. Park, J.E., Park K. : Text book of Preventive and Social Medicine. (Jabalpur: Message Banarsidas Bhanot, 1980) Edn.2.
2. Turner C.E.: The School Health and Health Education. (St.Louis: The C.V. Mosby Co., 1952) Edn.2.
3. Bedi : Yaspal, Social and Preventive Medicine (Delhi : Atma ram and Sons. 1983) Ed.14.
4. Ghosh, B.N. : A Treaties of Hygiene and Public Health. (Calcutta: Scientific Publishing Co.), Edn.15.
5. Hamlon, J.John : Principles of Public Health Administration (St. Louis : C.V. Mosby Co., 1969), Edn.5.
6. Bucher, A.Charles : Administration of Health and Physical Education and Programme. (St.Louis: The C.V. Mosby Co.. 1979) Edn.6.
7. Turner, C.E. : Personal and Community Health, (St.Louis: The C.V. Mosby Co.. 1972) Edn.14.

Paper-IV : Sports Medicine

Unit-I

Introduction: Concept of Sports medicine, its aim and objects. Need and scope of Sports Medicine in Physical Education. Role of Sports Physician, Physical Educator/ Athletic Trainer Coach and the player

in Sports Medicine. Team Medical care. History of Sports Medicine in India and abroad.

Unit-II

Sports Medicine Problems: Low back problems and management stretching and strengthening exercise for back problems, Malnutrition and management. Concept of Health Club, Sauna-bath and massage, their use and misuse. Sex problems in athletics. Difference between the two sexes. Advantages and disadvantages of exercises before and after pregnancy. Common old age problems of athletics and rehabilitation.

Unit-III

Therapeutic Modalities and Procedure of Individual Modalities Hydrocollateral packs (Hot and Cold) Hydrotherapy (whirlpool) Diathermy, Ultrasound, Electrical Muscle Stimulation, Combination of ultrasound and Electrical Muscle stimulation, Cryotherapy and compression, Cryokinetics, cold spray. Contrast bath paraffin bath Infra red and ultra violet rays, diathermy and laser therapy.

Unit-IV

General and Regional Injuries and their immediate management (Brief Description) Visceral, soft tissue and musculo-skeletal injuries Tissue response to injuries Inflammation macro and microtrauma and stress related injuries. Injuries of head and face. Shoulder arm and elbow joints. Specific injuries to the neck, trunk, abdominal region. Thighs and knee, lower leg, ankle and foot. Important over-use problems and their management.

Unit-V

Specific game injuries athletic nutrition, brief account of injuries: Football, Hockey, Track and Field, Swimming, Wrestling, Judo, Weight Lifting and Training, Tennis, Boxing, Gymnastics and Basketball. Net Protein Utilization : Planning and Justification of athletic diets for different categories of Sports as per recommendations of National Sports Medical Advisory Body-Role of water for Indian athletics.

M.P.E. FINAL PRACTICAL : Sports Medicine

1. Visit to sauna bath and its demonstration.
2. Demonstration and practices and measure and its different techniques.
3. Practical demonstration and use of therapeutic modalities and use of individual.
4. Modalities available as Sports Medicine Companies at L.N.C.P.E., Gwalior.
5. Demonstration for assessing following Sports Medicine Problems.
 - a. Shin splint; b. Tennis elbow and related problem, c. Back pain
 - d. Joint injury evaluation, e. Skeletal and angulation differences

between male and female

References:

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5. Pande P.K. Know How Sports Medicine (Jalandhar: A.P. Publisher, 1989).

Paper-V : Sports Psychology

Unit-I

Meaning nature and scope of sports, psychology development of sport psychology, relationship of Sport psychology with other sports sciences. Importance of Sports psychology to Physical Education and Coaches.

Unit-II

Cognitive process in Physical activities : Meaning of cognition characteristics of cognitive process in Sports. Role of sensation and perception, thinking, imagination and memory in Physical activities. Mental activity of athletics, mental activity and Sports related goals. Meaning of attention, Dimensions of attention, strategies to develop attention.

Motor learning : Meaning of motor learning factors affection motor learning motor development in various periods of childhood and adolescence.

Unit-III

Psychological aspects of action regulation : Meaning of action regulation, importance, Psychological characteristics of Physical activities, structure of action programme, action programme in different games and sports.

Personality : Meaning of personality, personality traits of sports person, relationship of personality to sport performance personality difference among various sports.

Unit-IV

Motivation : Meaning of motive, need, drive, role of motives, attitudes and interest in Physical activities. Meaning of motivation, techniques of motivation, type of motivation, relationship between extrinsic and intrinsic motivation.

Emotions : Meaning and types of emotion, influence of emotions (Success and failure) on level of aspiration and achievement. Anxiety, fear,

frustration, conflict and its effect on sports performance.

Unit-V

Psychological aspects of Competition : Defining competition, determinants of competitive behaviour, Psychological characteristics of pre-competition, competition and post competition, selected psycho-regulative Techniques for relaxation and activation. Psychological aspects of long term and short term Preparation for Competition. Psychological care of injured sports person, Typical responses to injuries, prevention and coping Techniques.

Sociological Facilitation : Presence of others co-action effect and audience effect in sports. Factors mediating social facilitations.

Methods of Investigation in Sports Psychology : Various methods used in Sports Psychology.

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1. Alderman, R.B. : Psychological Behaviour in Sports (Philadelphia: London, Saunders Company, 1974).
2. Bust Susan Dorcas : Psychology of Sports (Network : Van Nostrand Reinhold company), Edn.2
3. Cratty Bryant, J. : Movement Behaviour and Motor Learning. (Philadelphia Lea and Febiger. 1973), Edn.3.
4. Cratty Bryant J. : Psychology and Physical Activity (New Jersey Englewood Cliffs, Prentice Hall Inc., 1965).
5. Cratty Bryant, J. : Psychological Preparation and Athletic Excellence (New York : Movement Publication Inc., 1978)
6. Gold Stein and Joffery H. (ed.) : Sport Games and Play Social and Psychological View Points (Lewernce Erihanm Association, Publishers R.J., 1979)
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8. Kane J. : Psychological Aspect of Physical Education and Sports. (London, Boston : Routledge and Kegan Paul, 1972).
9. Liewallyor jac H. and Blucker Judy : A Psychology of Coaching Theory and Application (Delhi : Surjeet Publication, 1982).
10. Martens Rainer : Social Psychology and Physical activity (New York : Harper and Row Publishers, 1975).
11. Robert Glyn C. : Learning Experiences in Sports Psychology (Illionois : Human Kinetic Publishers Inc., 1986)
12. Martens Raine : Coaching Guide to Sports Psychology (Illionois : Human Kinetic Publishers Inc., 1987).
13. Linda K. Binker, Robert J. Ratella and Ann S. Really : Sports Psychology Psychological consideration in maximizing sports Performance (C. Brown Publisher Dubgae Jows).
14. Gill Dianel : Psychological Dynamics of Sports (Illionois : Human

Kinetic Publisher, 1986).

Paper-VI : Sports Sociology

Unit-I : Introduction:

- (i) Nature, Scope and Methods of Sports Sociology.
- (ii) Sports as a social phenomenon.
- (iii) Sociological analysis of sport and sport Sociology as an academic discipline.
- (iv) Social factor (appearance, sociality, aspiration level and audience) inference on participation and performance in sports.

Unit-II : Sports and Macro Social Systems:

- (i) Study of sports groups.
- (ii) Group interaction, competition and co-operation.
- (iii) Behaviour characteristics, qualities and role of sports leaders.
- (iv) Sports and Cultures,

Unit-III : Sports and Macrosocial Systems :

- (i) Relationship between Sports and socialising institutions (family, school and educational systems)
- (ii) Inter-relationship between and regulating institutions (Policies and economy).
- (iii) Sports and cultural institutions (religion and arts)
- (iv) Socialization via games and sports.

Unit-IV : Sports and Culture

- (i) Sports as a social institution.
- (ii) Sports an element of culture and a cultural product.
- (iii) Manipulative socialization and concerned conformity.
- (iv) Relationship between Sports and culture.

Unit-V : Social Games concerning Sports in Society:

- (i) Social stratification in Sports, Sports as a stratification system.
- (ii) Discrimination and democratization in sports with Special reference to socio-economic classes and women.
- (iii) Sports and aggression, Violence in sports.
- (iv) Problem regarding professionalisation and children in Sports.

References:

1. Loy. John W., Kenyon, Gerald, S. and Mcpherson, Barry D. : Sports Culture and Society (Philadelphia : Lea & Febiger. 1981).
2. Ball, Donal W. and Loy John W. : Sports and Social Order : Contribution to the Sociology of Sport (London Addison Wesley Publishing Co., Inc., 1975).
3. Loy John W. Mcpherson, Barry D., and Kenyon Gerald : Sports and Social system (London: Addison Wesley Publishing Company Inc.. 1978).
4. Edward Larry : Sociology of Sports (Illionois. The Dorsey Press. 1973).

5. Chatty, Bryant J. : Social Dimensions of Physical activity New Jersey: Englewood Cliffs, Prentice Hall Inc., 1967).

Paper VII : Bio-Mechanics

Unit-I

Introduction : Meaning of Biomechanics, Biomechanics in Physical Education, Sports and Research Fundamental skills- Basic and/of Sports.

Movement Analysis - Kinesiological Analysis. Mechanical Analysis and Bio-mechanical Analysis.

Understanding and Principles of Application Derived from the following:

Unit-II

Linear, angular and General Motion : Distance and Displacement (Linear and Angular). Speed and Velocity (Linear and Angular) Acceleration (Linear and Angular Uniform Motion).

Units of these, Relationship of Linear and Angular motion, Centrifugal and Centripetal. Forces Newtons Laws of motion as applicable to Linear and Angular Motion.

Unit-III

Force : Meaning, units of force, Effects of Force, Sources of Force, Components and Resultant, Friction Pressure. Work, Power and Energy, Movement of Force, Movement of Inertia Levers.

Unit-IV

Freely falling bodies, projectiles, momentum and Impulse. Stability (Static and Dynamic). Initiating Rotation in the air. Spin, Impact and Elasticity. Fluid Mechanics, Air Resistance and Water resistance.

Unit-V

Analysis of Fundamentals Skills : Walking, Running, Throwing, Lifting, Pulling, Pushing, Catching and Climbing.

Analysis of sports skills of the following : Athletics, Gymnastics, Swimming, Football, Hockey, Basketball and Cricket.

References:

1. Bunn, John W. : Scientific Principle of Coaching (Englewood Cliffs N.J. Prentice Hall Inc., 1972).
2. Simonian Charles : Fundamentals of Sports Bio-mechanics (Englewood Cliffs, N.J. Prentice Hall, Inc., 1981).
3. Hay, James, G.: The Bio-mechanics of Sports Techniques Englewood Cliffs, N.J. : Prentice Hall, Inc., 1970).
4. Broer, M. Rion R. and Zeraicke R. Ronald F.: Efficiency of Human Movement (Philadelphia : W.E. Saunder Co., 1979).
5. Hay, James G. and Reid J. Gavind : The Anatomical and Mechanical Basis of Human Motion (Englewood Cliffs, Prentice Hall, Inc., 1982).
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