



DHANAMANJURI UNIVERSITY
Imphal, Manipur

SYLLABUS

MPES

MASTER OF PHYSICAL EDUCATION AND SPORTS

OFFICIAL COPY

Department of
Physical Education and Sports Science
(PESS)
D.M. College of Science

DHANAMANJURI UNIVERSITY, IMPHAL, MANIPUR

Department of Physical Education and Sports Science.

SYLLABUS AND COURSE CURRICULUM OF

M P E S

(Master of Physical Education and Sports)

W. J. J. J.
Head of Department
Physical Education and Sports Science
D.M. College of Science
D.M. University, Imphal

INTRODUCTION OF THE COURSE:

The MPES (Master of Physical Education and Sports) is a Two Years Post Graduate Degree Course under Dhanamanjuri University, Imphal. After completion of the course, Degree will be awarded as MPES (Master of Physical Education and Sports). The MPES Degree is a recognized Post Graduate Degree in Physical Education and Sports by the UGC.

OBJECTIVES OF THE COURSE:

The objectives of the programme of MPES (Master of Physical Education and Sports) are:

- i) To provide better Leadership Quality especially in the field of Physical Education and Sports.
- ii) To produce Excellent Teachers in Physical Education and Sports.
- iii) To provide Right Concept about Health, Health Education, Fitness and Wellness.
- iv) To provide Basic Concept about Sports Training and Coaching.
- v) To Provide Knowledge and promotion of health and wellness through games and sports activities,
- vi) To enhance and develop the Scientific Knowledge of Sports Sciences.
- vii) To develop Self-belongingness, Group-cohesion, Social value, Good Citizenship, Spirituality and General awareness through Physical Education and Sports.
- viii) To expose and develop the inherent positive talents of the students,

ELIGIBILITY FOR ADMISSION:

Candidates seeking for admission to First semester of MPES should have passed BPES or B.Sc. in Physical Education, Health Education and Sports or B.P.Ed Examination from any recognized institution/ University with a minimum of 50% marks for unreserved category and 45% marks for ST/SC/OBC/OBC(MP) in aggregate.

MEDIUM OF INSTRUCTION:

The medium of instruction and Examination shall be in English.

EXAMINATION:

1. The MPES program for a regular student shall be a minimum period of two years and for back paper student a maximum of four years period from the date of the admission of the candidate. Each academic year shall comprise of two semesters, viz. Odd semester and Even semesters. Odd semesters shall be from June/July to October/November and Even semesters shall be from November/December to April/May on the dates notified by the Authority of the University.
2. There shall be End Semester Examination (ESE) in each semester of the course.
3. There are four semesters of university examinations during the course which to be held at the end of the every semester.
4. Examination of each semester shall be conducted in two components for Total of 600 Marks:
 - i) **PART-A (Theory): Four Papers of 100 Marks each = 80 Marks (ESE) + 20 Marks (Internal) in each paper.**
 - ii) **PART-B (Practical Papers related to theory Papers and field Practical of Games & Sports) = Two papers of 100 Marks each.**
5. The candidate who passed in all papers in the examinations with **40%** of marks both in PART- A (Theory) and PART-B (Practical) in aggregate shall be declared passed. The passed candidates shall be awarded with the division according to the following criteria.
 - i) **First Division:-** Candidate securing **60%** of marks and above in aggregate in **PART-A** and in **PART-B** Examinations separately.
 - ii) **Second Division:-** Candidate securing less than **60%** of marks but not less than **45%** in aggregate in **PART-A** and in **PART-B** Examination separately.
 - iii) **Third Division:-** Candidate securing less than **45%** of marks but not less than **40%** in aggregate in **PART-A** (Theory) and in **PART-B** Examination separately.
 - iv) The pass percentage of the Internal Assessment will be **50%** in aggregate.
 - v) All the candidates who have not passed will be categorized as failed.

EVALUATION:

Evaluation system in each semester has the following Components:

The End-Semester Examination (ESE) of all the semesters will have the following scheme :

- i) **PART-A (Theory):** 320 Marks for four theory papers (80 Marks in each paper) and 80 Internal Marks for four theory papers (20 Marks in each paper) = total 400 Marks in each Semesters.
- ii) **PART – B (Practical):** 200 Marks for Two Practical Paper of 100 Marks in each paper.

ATTENDANCE:

Each student shall have attendance as per the UGC/University rules in theory and in practical activities separately. Attendance shall be recorded in terms of working days, lectures/tutorials/practical classes separately. Any student having less than the minimum percentage of attendance will not be allowed to appear in the End-semester Examination (ESE).

BACK PAPER:

The Back Paper provision from time to time of the University shall be followed.

COURSE CURRICULUM AND SCHEME OF EXAMINATION

MPES – (First Semester)

Part – A (Theory):

Paper Code	Nomenclature of Paper / Title of Paper	Theory Marks		Total Marks	Credit
		Internal Assessment	End Semester		
PES-501	Foundation of Physical Education and Sports	20	80	100	4
PES-502	Anatomy and Physiology in Physical Education and Sports	20	80	100	4
PES-503	Sports Management	20	80	100	4
PES-504	Health Education and Nutrition	20	80	100	4

Part – B (Practical):

Paper Code	Nomenclature of Paper / Title of Paper	Theory Marks		Total Marks	Credit
		Internal Assessment	End Semester		
PES-505	Practical of PES (501, 502, 503 and 504)		25 x 4	100	4
PES-506	Practical Paper - Game/Sports Specialization (Any one):- 1) Athletics, 2) Badminton, 3) Basketball, 4) Boxing, 5) Football, 6) Handball, 7) Hockey, 8) Judo, 9) Kabaddi, 10) Kho-Kho, 11) Lawn-Tennis, 12) Sepak-Takraw, 13) Softball, 14) Table-Tennis, 15) Volleyball, 16) Yoga, and 17) Taekwon-do			100	4
Grand Total =				600	24

MPES – (Second Semester)

Part – A (Theory):

Paper Code	Nomenclature of Paper / Title of Paper	Theory Marks		Total Marks	Credit
		Internal Assessment	End Semester		
PES-507	Science of Sports Training	20	80	100	4
PES-508	Methodology of Research in Physical Education and Sports	20	80	100	4
PES-509	Physiology of Exercise in Physical Education and Sports	20	80	100	4
PES-510	Sports Medicine	20	80	100	4

Part – B (Practical):

Paper Code	Nomenclature of Paper / Title of Paper	Theory Marks		Total Marks	Credit
		Internal Assessment	End Semester		
PES-511	Practical of PES (507, 508, 509, and 510)		25 x 4	100	4
PES-512	Continuation of Practical Paper:- Game/Sports Specialization of first Semester			100	4
Grand Total =				600	24

MPES – (Third Semester)**Part – A (Theory):**

Paper Code	Nomenclature of Paper / Title of Paper	Theory Marks		Total Marks	Credit
		Internal Assessment	End Semester		
PES - 613	Specialization Paper Sports Psychology - 1 (Psychology in Physical Education and Sports)	20	80	100	4
PES - 614	Specialization Paper Sports Psychology - 2 (Developmental Psychology and Sports Performance)	20	80	100	4
PES - 615	Applied Statistics and Computer Application in Sports	20	80	100	4
PES - 616	Test, Measurement and Evaluation in Physical Education	20	80	100	4

Part – B (Practical):

Paper Code	Nomenclature of Paper / Title of Paper	Theory Marks		Total Marks	Credit
		Internal Assessment	End Semester		
PES - 617	Practical of PES (613, 614, 615, and 616)		25 x 4	100	4
PES - 618	Continuation of Practical Paper:- Game/Sports Specialization of first Semester			100	4
Grand Total =				600	24

MPES – (Fourth Semester)

Part – A (Theory):

Paper Code	Nomenclature of Paper / Title of Paper	Theory Marks		Total Marks	Credit
		Internal Assessment	End Semester		
PES – 619	Specialization Paper Sports Psychology - 3 (Psychology of Sports Coaching and Sports Performance)	20	80	100	4
PES -620	Specialization Paper Sports Psychology - 4 (Psychological Aspects in Physical Education and Sports)	20	80	100	4
PES – 621	Biomechanics and kinesiology in Sports	20	80	100	4
PES – 622	Optional Paper :- To be selected either (a) or (b) (a) Educational Technology and Pedagogy in Physical Education and Sports (b) Sports Journalism and Mass Media	20	80	100	4

Part – B (Practical):

Paper Code	Nomenclature of Paper / Title of Paper	Theory Marks		Total Marks	Credit
		Internal Assessment	End Semester		
PES – 623	Practical of PES (619, 620, 621, and 622)		25 x 4	100	4
PES - 624	Dissertation			100	4
	Grand Total: =			600	24

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MPES-First Semester

PES-501

(Foundation of Physical Education and Sports)

Full Marks: 80

Pass Marks: 32

Unit-I- Principles of Physical Education:

16 Marks

- i) Meaning and Definition of Physical Education
- ii) Objectives and Scope of Physical Education
- iii) Introduction, Nature and Definition of Principles
- iv) Principles based on Science
- v) Principles based on Philosophy
- vi) Significance of Principles in Physical Education

Unit-II- Philosophy of Physical Education:

16 Marks

- i) Introduction of Philosophy in Physical Education
- ii) Different Aspects of Philosophy in Physical Education
- iii) Need for Philosophy in Physical Education
- iv) Modern Philosophical Concept of Physical Education
- v) Different Philosophies of Physical Education- Idealism, Naturalism, Realism, Pragmatism and Existentialism

Unit-III- Biological Foundation Physical Education:

16 Marks

- i) Activities- Survival and Developmental Activities
- ii) Growth and Development - Consequences of Physical Exercise
- iii) Principles of Growth and Development
- iv) Effects of Heredity and Environment on Growth and Development
- v) Sex and Age Differences- Anatomical and Physiological Differences
- vi) Body Types- Pyknics (Endomorph), Asthenics (Ectomorph) and Athletic (Mesomorph)

Unit- IV-Psychological Foundation of Physical Education:

16 Marks

- i) Meaning and Definition of Psychology
- ii) Psycho-Physiological Unity of Human Organism
- iii) Psychological Factors Affecting Physical Performance
- iv) Laws of Learning and their application to Sports Performance
- v) Theories of Transfers of Training and its Importance in Physical Performance
- vi) Emotions and Physical Education

Unit- V- Sociological Foundation of Physical Education:

16 Marks

- i) Social Nature of Man and Learning
- ii) Influence of Social Inheritance on Behaviour Pattern
- iii) Social Values and Development of Different Traits and Ideas
- iv) Influence of Group Life on Individual
- v) Co-operation and Competition, Social Recognition
- vi) Influence of Physical Education on Socialization

Reference Book:

- 1) Bucher C.A., "Foundation of Physical Education", St. Louis, C.V. Mosby Company.
- 2) Barrow Harold M., "Man and Movement, Principles of Physical Education",
Lea and Febiger, 1993
- 3) Ajmer Singh, "Physical Education and Olympic Movement", Kalyani Publishers, Ludhiana-2004
- 4) Cowel & France Philosophy and Principles of Physical Education.
- 5) Kamlesh M.L and M.S. Sangral, Principles and History of Physical Education, Prakash and Bros.
Ludhiana, P.S. Publication.
- 6) Kamlesh M.L- Psychology in Physical Education and Sports, Metropolitan Book Co. (p) Ltd. New
Delhi 110002
- 7) Oratty B.J.- Social Diamention of Physical Activity,- Prentice Hall, Inc-London

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MPES-First Semester

PES-502

(Anatomy and Physiology in Physical Education and Sports)

Full Marks: 80

Pass Marks: 32

UNIT-I- Anatomy and Physiology in Physical Education and Sports: 16 Marks

- i) Meaning, Definition and Importance of Anatomy and Physiology in Physical Education and Sports.
- ii) Human Skeleton- Description of Human Skeleton.
- iii) Types and General Features of Bone.
- iv) Joints of Bone – Definition and Classification of Joints.
- v) Skeleton of the Upper Limb- Clavicle, Scapula, Humerus, Radius, Ulna, Carpus, Metacarpus and Phalanges.
- vi) Skeleton of the Lower Limb- Femur, Patella, Tibia, Fibula, Tarsal, Metatarsal and Phalanges.

UNIT- II- Muscular System:

16 Marks

- i) Types and functions of Muscle.
- ii) Origin and Insertion of Skeletal Muscle - Muscles of Shoulder joint, Elbow joint, Ankle joint and Knee joint.
- iii) Properties of Voluntary Muscle - Extensibility and Elasticity, Irritability (Excitability), Contractility and Muscle Tone.
- iv) Types of Muscle Contraction - Concentric, Eccentric and Static.
- v) Various Movements around the Joints – Flexion and Extension, Circumduction and Rotation, Abduction and Adduction, Pronation and Supination.

UNIT-III- Cardio-Respiratory System:

16 Marks

- i) Structure of Heart and Major Blood Vessels in Different Parts of the Body.
- ii) Pumping actions of Heart and its Regulation, Blood Pressure
- iii) Heart Rate, Stroke Volume and Cardiac-Cycle and Cardiac-Output,
- iv) Structure of Respiratory Organs, Mechanism of Respiration.
- v) Functions of Lungs and Regulation of Respiration.
- vi) Cardio-Respiratory Endurance and Respiratory Capacities.

UNIT- IV- Gastro-intestinal and Excretory System:

16 Marks

- i) Brief Descriptions of Digestive Organs- Mouth, Teeth, Tongue, Salivary Glands, Stomach and Intestine.
- ii) Structure and Functions of Liver.
- iii) Mechanism of Digestion and Absorption of Food
- iv) Structure of Alimentary Canal- Structure of Kidney and Urinary Track.
- v) Various Channels of Excretion- Kidney, Skin and Rectum.

UNIT-V- Nervous and Endocrine System:

16 Marks

- i) Anatomical Structure and Development of Brain.
- ii) Functions of various Parts of the Nervous System- Spinal Cord; Medulla, Cerebrum and Cerebellum.
- iii) The Neuron and Motor Unit, the Motor and Sensory Impulses.
- iv) Anatomical Structure of Endocrine Glands- Pituitary, Thyroid, Parathyroid, Adrenal Glands.
- v) Functions of Endocrine Glands- Pituitary, Thyroid, Parathyroid, Adrenal Glands.

Reference Book:

1. Pearce Evelyn. C., -Anatomy and Physiology for Nurses, Faber and Faber, Calicutta, Oxford University Press, Delhi, Bobay, Madras
2. Pavat, J.- Anatomy for Students and Teachers of Physical Education, London, Edward Arnold and Co.
3. Senson Wright, Applied Physiology,
4. Willion J.F.- Anatomy and Physiology, London, W.B. Saunders
5. Dr. rattan Vidya- Hand Book of Human Physiology, Jaypee Bros, Medical Publishers- Delhi.
6. Gyto A.C. – Functions of Human Body, London, Saunders Company.

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MPES-First Semester

PES-503

(Sports Management)

Full Marks: 80

Pass Marks: 32

16 Marks

UNIT-I- Concept of Sports Management:

- i) Meaning, Definition and Importance of Sports Management
- ii) Nature and Scope of Sports Management.
- iii) Aim and Objectives of Sports Management.
- iv) Modern Concept of Sports Management.
- v) Basic Principles and Procedures of Sports Management.
- vi) Types of Management in Sports.

UNIT-II- Infrastructure, Finance and Personnel:

16 Marks

- i) Management of Infrastructure, Equipment.
- ii) Management of Finance and Personnel in Sports.
- iii) Factors influencing Program Development.
- iv) Organization and Functions of Sports Bodies.
- v) Management Guidelines for School and College Sports programs.
- vi) Competitive Sports Programs and its Benefits.

UNIT-III- Skills of Management:

16 Marks

- i) Technical Skills, Human Skills, Conceptual Skills and Personal Skills in Physical Education and Sports.
- ii) Qualities and Qualifications of Manager in
- iii) Role of Manager in Physical Education and Sports.
- iv) Care and Maintenance of Play Field in Sports
- v) Community Based Physical Education and Sports Program.
- vi) SWOT Analysis: Meaning and importance of SWOT Analysis in Sports Management.

UNIT-IV- Purchase and Care of Sports Equipment:

16 Marks

- i) Guidelines for Selection of Sports Equipment and Supplies.
- ii) Purchase of Equipment and Supplies.
- iii) Equipment Room and Equipment Supply Manager.
- iv) Guidelines for Storing, Issuing, Care and Maintenance of Sports Equipment.
- v) Disposal of Sports Equipment.
- vi) Records and Registers: Importance and Maintenance of Registers in Sports Management.

UNIT-V- Planning and Supervision in Sports Management:

16 Marks

- i) Concept, Meaning and Importance of Planning in Sports Management.
- ii) Principles of Planning, Steps involved in Planning Process.
- iii) Role of Manager in Physical Education and Sports.
- iv) Concept, Need and Guiding Principles of Supervisor.
- v) Aims and Objectives of Supervision in Sports Management.
- vi) Role of Manager in Physical Education and Sports.

Reference Book:

1. Chakraborty & Samiran (1998), Sports Management, New Delhi: Sports Publication.
2. Charles, A, Bucher & March, L, Krotee. (1993), Management of Physical Education and Sports, St. Louis: Moby Publishing Company.
3. Chelladurai, P. (1999), Human Resource Management in Sports and Recreation. Human Kintics.
4. Bill, K. (2009), Sports Management, Exeter (England): Learning Matters. ISBN-13:978-1844452637. ISBN. 10: 1844452638.
5. Smith, A. & Stewart, B. (1999), Sport Management. St. Leonards, N.S.W.: Allen & Unwin. ISBN-13: 978-1864487510. ISBN.-10: 1864487518.
6. Kamlesh M.L. and Sangram, M.S. (1982): Methods in Physical Education , Prakash Bros, Jullundur.
7. Wakharkar D.C. (1998). Sports Management, Delhi Sports Publications.

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MPES-First Semester

PES-504

(Health Education and Nutrition)

Full Marks: 80

Pass Marks: 32

UNIT-I- Concept of Health and Health Education:

16 Marks

- i) Meaning and Definition of Health and Health Education, Scope of Health Education
- ii) Need, Aim and Objectives of Health and Health Education.
- iii) Different Dimensions of Health.
- iv) Community Health:- Meaning and definition of Community health.
- v) Different levels of Health services- Basic health Service and Primary Health Center.
- vi) Factors Affecting Health and Wellness.

UNIT-II- School Health Service and College health program:

16 Marks

- i) Importance and Aspects of School health Services.
- ii) Health Problems of School Children, Medical Examination in School and Healthful School Environment.
- iii) Health Awareness Programs of College Youths.
- iv) Health Problems of College Youths, Harmful effects of Intoxicated Substances:- Tobacco, Alcohol, Drugs and their Preventive Measures.
- v) Mental Health Problems of College Youths and its Prevention.
- vi) Sexually Transmitted Diseases (STD) - HIV, AIDS and their Preventions.

UNIT-III- Food and Nutrition:

16 Marks

- i) Meaning and Importance of Food and Nutrition.
- ii) Types of Food and their Function.
- iii) Components of Food, Essential Body Nutrients of Food.
- iv) Protein and its Sources, Importance of Protein.
- v) Carbohydrate and its Sources, Classification of Carbohydrate.
- vi) Fats and their Sources, Classification of Fat.

UNIT-IV- Vitamins and Minerals:

16 Marks

- i) Varieties of Vitamins and their Food Sources.
- ii) Importance and Needs of Vitamins.
- iii) Varieties of Minerals and their Food Sources.
- iv) Importance and Needs of Minerals.
- v) Free Radicals and Antioxidants, Importance of Antioxidants.
- vi) Diseases caused by Deficiency of Food and their prevention.

UNIT-V- Diet and Performance:

16 Marks

- i) Role of Carbohydrate, Fat and Protein on Performance.
- ii) Carbohydrate Loading.
- iii) Nutrition for Weight Management – Food Pyramid for Weight Management.
- iv) Balance Diet – Meaning and Importance of Balance Diet.
- v) Balance Diet for Athlete and Non-athlete.

Reference Book:

1. Park K.,(2013), Park's Text Book of Preventive and Social Medicine, Twenty Second Edition, M/s Banarasidas Bhnot Publishers, 1167, Prem Nagar, Jabalpur, 482001 (MP), India
2. Prof. Rai B.C., Health Education and Hygiene, Prakashan Kendra, Railway Crossing, Sitapur Road, Luknow.
3. Dr. S.K. Mangal, Health and Physical Education, Prakash and Bros., Educational Publishers, 546, Book Market, Ludhiana.
4. Anderson, C.L. and Chewell, William H., School Health Practice, St. Louis: C.V. Mosby Company.
5. K. Tones, Y.K. Robinson's, S. Tilfor (2013), Health Education, Springer, UGC (2005), Text Book of Environmental Studies, University Press.
6. WHO, (2006) Preventing Diseases Through Healthy Environment.
7. Robert Crayhon, M.S., Nutrition for Longer Life,- Magna Publishing Company Ltd. Mumbai.
8. Fink H.H.. Burgoon A. Lisa and Mikesky E. Alan, Practical Application in Sports Nutrition, Jones and Bartlett Publishers, Inc.2006.
9. Dunford Marie, Fundamentals of Sport and Exercise Nutrition, Human Kinetics, Fundamentals of Sports and Exercise Science Series, 2010.
10. Clark Nancy, Sports Nutrition Guidebook, third Edition, Human kinetics, 2003.

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MPES-First Semester

PES-505

Practical of

PES (501,502,503 and 504)

Full Marks: 100

Pass Marks: 40

UNIT-I- Practical of 501 (Foundation of Physical Education and Sports):

25 Marks

- i) Prepare the Charts of Different Body types and Practical Performance of Physical activities for Different Body Types.
- ii) Practical Performance of:
 - a) Perception
 - b) Concentration
 - c) Memory
 - d) Emotion

UNIT-II- Practical of 502 (Anatomy and Physiology in Physical Education and Sports): 25 Marks

- i) Drawing and Identification of Bones: - Bones of Upper and Lower Limbs, Cranial Bones
- ii) Prepare the Charts of Origin, Insertion and Nerve Supply of Muscles of Upper Limb and Lower Limb.
- iii) Study of heart Sound and Breath Sound by means of Stethoscope, Study of Radial Pulse, Measurement of Blood Pressure.

UNIT- III- Practical of 503 (Sports Management):

25 Marks

- i) Planning and Organization of Sports Events: Intramural or Extramural Sports Tournament.
- ii) Officiating in the Institutional Sports Tournaments.
- iii) Preparation of Report of Sport Events of the Institution.
- iv) SWOT Analysis.

UNIT- IV- Practical of 504 (Health Education and Nutrition):

25 Marks

- i) Visit to the Mess of Hostel of Institute or Hotel and Prepare a Report with suggestion to improve the Quality of Food and Hygiene there.
- ii) Organization of Health Awareness Program in the Institute.
- iii) Visit to a Primary Health Center and Prepare a Report of the Visit.
- iv) Prepare a Chart of Balance Diet or Food Pyramid.

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MPES-First Semester

PES-506

Practical Paper

(Games and Sports Specialization)

MPES – IB2 - Games and Sports Specialization (Practical Paper):

Full Marks: 100

Pass Marks: 40

The area which are applicable to all the Games / Sports Specialization:

- | | | |
|------|---|--------------------------|
| I. | Drawing / Marking and Measurement of Playing Field / Court of the Specialized Game / Sport. | 10 Marks |
| II. | Scientific Training and Coaching of the Specialized Game / Sport for improvement of Skills, Techniques and Tactics. | 20 Marks |
| III. | Lead-up Games and their application to the Specialized Game / Sport. | 10 Marks |
| IV. | Three Coaching lesson Plan of the Specialized Game / Sport. | 20 x 3 = 60 Marks |

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MPES-Second Semester

PES-507

(Science of Sports Training)

Full Marks: 80

Pass Marks: 32

16 Marks

Unit-I- Aim, Tasks and Features of Sports Training : -

- i) Meaning, Definition, Aims and Principles of Sports training
- ii) Main Tasks of Sports Training
- iii) Main Features of Sports Training
- iv) Prerequisites for Obtaining Top Class Performances
- v) Characteristics of Sports training
- vi) Training Structure, Model of Sports Training

Unit-II- Training Load and Recovery : -

16 Marks

- i) Principles of Load, Components of Load - Physical Exercise, Movement Quality, Load Intensity, Load Volume
- ii) Degree of Load, Load and Adaptation
- iii) Judgment of Load : Objective means , Subjective Means
- iv) Overload, Causes of Overload, symptoms of overload
- v) Recovery, Phases of recovery, Factors Affecting Pace of Recovery
- vi) Means of Recovery - Training Methodical means, Nutritional and Physiotherapeutic means, Psychological means

Unit- III- Components of Motor Abilities in Sports Training : -

16 Marks

- i) Strength – Types of Strength, Factors Determining Strength, Improvement of Strength, Methods of Strength improvement
- ii) Speed – types of Speed Abilities, Factors Determining Speed, Improvement of Speed Abilities, Speed Barrier
- iii) Endurance – Types of Endurance, Factors Determining Endurance, Improvement of Endurance
- iv) Flexibility – Importance, Types of Flexibility, Factors Determining Flexibility, Improvement of Flexibility
- v) Coordinative Ability – Definition, Importance, Improvement of Coordinative Ability

Unit-IV- Periodization in Sports Training : -

16 Marks

- i) Aims and Contents of Periods – Preparatory, Competition, Transition
- ii) Types of Periodization
- iii) Technique – Definition of technique, Skill, Aim of Technique in Sports
Motor Learning, Methods of Technique Training
- iv) Tactics – Aims of Tactics, Training for Tactics
- v) Principles of Tactical Preparation

Unit- V- Planning in Sports Training : -

16 Marks

- i) Principles of Planning
- ii) Duration of one Periodic Cycle – Micro Cycle, Macro Cycle, Meso-Cycle
- iii) Types of Training Plans – Training Conception, Yearly Plan,
Meso-Cycle Plan, Micro Cycle Plan, Training Session Plan.
- iv) Performance and Load Indices
- v) Formulation of Yearly Plan

Reference Book:

1. **Bunn, J. N., Scientific principles of Coaching, New jersey, Engle Wood Cliffs, Prentice Hall Inc.**
2. **Cart, E. Klafs and Daniel, D. Arnheim, Modern Principles of Athletic Training, St. Louis C.V. Mosby Company**
3. **Haff, G., & Triplett, N., Essentials of Strength Training and Conditioning Campaign, III. : Human Kinetics. ISBN-13: 9780736065832**
4. **Singh, Hardayal, Science of Sports Training, D.V.S. Publications, 100 T.K. Giri Nagar, Kalkaji, New Delhi- 110019**
5. **Dick, W.F. (1980), Sports Training Principles, London: Lepus Books,**
6. **Harre, D. (1982), Principles Sports Training, Berlin: Sporulated.**
7. **Uppal, A. K., (1999), Sports training, New Delhi: Friends Publication.**

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MPES-Second Semester

PES-508

(Methodology of Research in Physical Education and Sports)

Full Marks: 80

Pass Marks: 32

Unit-I- Introduction to Research in Physical Education : -

16 Marks

- i) Meaning, Nature and Objective of Research
- ii) Need and Scope of Research in Physical Education
- iii) Characteristics of Research
- iv) Research Approaches, Significance of Research
- v) Research Process,
- vi) Criteria of a Good Research

Unit-II- Developing the Research Problem and : -

16 Marks

- i) Identifying the Research Problem
- ii) Guidelines for Finding a Topic
- iii) Criteria in Selecting a Research Problem
- iv) Sampling and Population, Sampling Theory, Sampling Error, Steps in Sampling Process, Probability Sampling and Random Sampling
- v) Hypothesis, Criteria for Hypothesis Construction, Nature of Hypothesis, Types of Hypothesis

Unit- III- Research Design : -

16 Marks

- i) Meaning, Need Research Design
- ii) Features of a Good Research Design, Different Research Design
- iii) Variables – Definition, Concept, Construct and Characteristics
- iv) Types of Variables – Dependent and Independent Variables
- v) Research Hypothesis, Value of Hypothesis, Elements of Good Hypothesis
- vi) Research Proposal, Components of Research Proposal

Unit-IV- Descriptive Research : -

16 Marks

- i) Questionnaire : Format of the Questionnaire, Arranging Sequence of the Questions, Types of Questions, Steps in Questionnaire Construction
- ii) Interview : Functions of Interview, Characteristics of Interview, Types of Interview, Process of Interviewing, Merits and Limitations of Interview
- iii) Case Study : Characteristics and Principles of Case Study, Purpose and Types of Case Studies, Sources of Data Collection for Case Studies,
- iv) Conducting the Pilot Study

Unit- V- Interpretation and Research Report Writing : -

16 Marks

- i) Meaning of Techniques of Interpretation
- ii) Basic Guidelines for Report writing
- iii) Format of Report Writing – Front Matter, Main Body of the Report and Supplementary Matter
- iv) Types of Report – Technical Report and Popular Report
- v) Footnotes
- vi) Mechanics of Writing a Research Report

Reference Book:

8. **Thomas Jerry, R., Nelson Jack, K., Research Methods in Physical Activity, Human Kinetics**
9. **Kamlesh, M. L., Methodology of Research in Physical Education and Sports, Sports Publication, 7/26, Ground Floor, Ansari Road, Darya Ganj, New Delhi - 110002**
10. **Kothari, C.R., Garg Gourav, Research methodology, Methods and Techniques, New Age International (P) Limited, Publishers, London, New Delhi, Nairobi, www.newagepublishers.com**
11. **Ahuja Ram, Research Methods, Rawat Publications, Jaipur, New Delhi, Bangalore, Hyderabad, Guwahati, Rawat Publications, Satyam Apts., Sector 3, Jawahar Nagar, Jaipur – 302004**

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MPES-Second Semester

PES-509

(Physiology of Exercise in Physical Education and Sports)

Full Marks: 80

Pass Marks: 32

Unit-I- Physiology of Muscle Contraction:-

16 Marks

- i) Muscle Fiber Types
- ii) Structure of Myofibril and Contractile Mechanism (Sliding Filament Theory)
- iii) Muscle Twitch and its Myogram, Temperature Effects upon Muscle Contraction
- iv) The "All or None" Law
- v) Electrical Phenomena and Electromyography
- vi) Energy for Muscle Contraction

Unit-II- Heart and Exercise: -

16 Marks

- i) Structure and Properties of the Heart
- ii) Cardiac Cycle and Cardiac Output
Cardiac Output during Rest, Cardiac Output during Exercise
- iii) Heart Rate : Control of Heart Rate, Heart Rate Response to Exercise
- iv) Factors Affecting Heart Rate : Age, sex, Size, Posture, Ingestion of Food, Emotion, Body Temperature
- v) Stroke Volume : Control of Stroke Volume, Stroke Volume Response to Exercise
- vi) Cardiac Hypertrophy and Electrocardiogram (ECG)

Unit- III- Respiratory System and Exercise : -

16 Marks

- i) Respiratory Muscles - Muscles used in Inspiration and Expiration
- ii) Lung Ventilation Response to Exercise – Minute Ventilation or Pulmonary Ventilation, Lung Volumes and Capacities
- iii) Respiratory Control
- iv) Lung Ventilation in Rest and Exercise
- v) Factors affecting Lung Volumes and Lung Ventilation Rate – Age, Anthropometric Measure and Posture
- vi) Use of Oxygen to improve Performance : Before Exercise, During Exercise and During Recovery

Unit-IV- The Nervous System and Muscular Activity : -

16 Marks

- i) The Neuron and the Motor Unit
- ii) Reflex arc and Involuntary Movement
- iii) Inter-segmental and Supra-segmental Reflexes
- iv) Proprioception and Kinesthesia
- v) Alfa and Gamma Systems for Muscular Control
- vi) Posture, Balance and Voluntary Movement

Unit- V- Exercise and Metabolism: -

16 Marks

- i) Definition of terms : Work, Power, Energy and Efficiency
- ii) Sources of Energy :- ATP-CP, Aerobic and Anaerobic Metabolism (Carbohydrate Breakdown)
- iii) Fat and Protein Metabolism : Krebs Cycle and Electron Transport System
- iv) Energy Metabolism During Rest, Exercise and Recovery
- v) Methods for Standardizing and Measuring Workloads : - Bench Stepping, Treadmill, Bicycle Ergometer
- vi) Respiratory Quotient (RQ)

Reference Book:

1. Herbert de Vries – **Physiology of Exercise for Physical Education and Athletics**, Staples Press, London.
2. Lary G. Shaver – **Essentials of Exercise Physiology**, Surjeet Publications, Post Box No. 2157, 7-K, Kolhapur Road, Kamla Nagar, Delhi – 110007.
3. William D. McArdle, Frank. I. Katch, Victor L. Katch – **Exercise Physiology, Energy, Nutrition and Human Performance**, sound beach, New York, Amherst, Massachusetts, Ann Arbor, Michigan.
4. **Vinod Marotrao Bali – Physiology of Exercise and Kinesiology**, Sports Publication 7/26, Ground Floor, Ansaari Road, Drya Ganj
5. Dr. Rajendra Ramteke – **Anatomy, Physiology, Physiology of Exercises and Health Education**, Sports Publication 7/26, Ground Floor, Ansaari Road, Drya Ganj

Syllabus

MPES-Second Semester

PES-510

(Sports Medicine)

Full Marks: 80

Pass Marks: 32

16 Marks

Unit-I- Introduction : -

- i) Concept, Need, Aim and Objectives of Sports Medicine in Physical Education and Sports.
- ii) Brief History of Sports Medicine in India.
- iii) Role of Sports Physician, Physical Educator, Coach and Player in Sports Medicine.
- iv) Doping : Meaning and Definition of Doping, History of Doping, Classification of Doping, Doping Control Procedures.
- v) Athlete's Responsibilities in Doping.

Unit-II- Drugs and Sports Performance : -

16 Marks

- i) Meaning and Definition of Drug.
- ii) Drug Abuse and Drug Dependence.
- iii) Ergogenic Aids in Exercise and Sports Performance and Prohibited Substances : Amphetamines, Anabolic Steroids, Alcohol, Alkaline, Caffeine and Blood Doping.
- iv) Role of WADA and NADA in Drugs and Sports Performance.

Unit- III- First Aids and Sports Injuries : -

16 Marks

- i) Meaning, Aims and Objectives, Principles, Scopes and Golden Rules of First Aid.
- ii) Classification, Causes and Prevention of Sports Injuries.
- iii) Wounds and Haemorrhage : General Rules for Treatment Accompanied by Haemorrhage, Control of Haemorrhage.
- iv) Dressings and Bandages : Emergency Dressing and Cold Compress, Triangular Bandage and Roller Bandage, Different Knots and Slings.
- v) Different Methods of Artificial Respiration : Holger-Nielsen Method, Schafer's Methods and Mouth to Mouth Resuscitation Method.

Unit- IV- Sports Medicine Problems : -

16 Marks

- i) Mal-Nutrition and Management.
- ii) Age and Sex Problems in Athletes and their Differences in Sports.
- iii) Special Consideration of Women in Sports, Female Athlete Triad.
- iv) Psychological and Sociological Aspects of Women Athlete.
- v) Sports Medical Problems and Rehabilitation.

Unit-V- Nutrition and Sports Performance : -

16 Marks

- i) Meaning and Definition of Sports Nutrition.
- ii) Basic Nutritional Guidelines, Role of Nutrition in Sports.
- iii) Planning and Justification of Athletic Diets for Different Categories of Sports.
- iv) Nutrition and Weight Management : Concept of BMI (Body Mass Index).
- v) Dieting Versus Exercise for Weight Control, Weight Management Program for Sports Person, Diet Plan and Exercise for Weight loss and Weight Gain.

Reference Book:

1. Rouzier, P, The Sports Medicine Patient Advisor, Amherst, MA: SportsMed Press. ISBN- 10: 0984303103. ISBN-13: 978-0984303106
2. Brukner, P., Khan, K., Brukner and Khan's Clinical Sports Medicine. Sydney: McGraw-Hill. ISBN-10: 0070998132. ISBN-13: 978-0070998131.
3. Larry G. Shaver. Essentials of Exercise Physiology, Surjeet Publications, Pox Box No. 2157, 7-K, Kolhapur, Kamlanagar, Delhi.
4. St. John Ambulance Association (India) Publication, First Aid to the Injured , Red cross road, new Delhi
5. Seidenberg, P., and Beutler, A., The Sports Medicine Resource Manual. Philadelphia, PA: Sounders/ Elsevier. ISBN-10: 1416031979. ISBN-13: 978-1416031970

Syllabus
MPES - Second Semester
PES-511
Practical of
PES (507, 508, 509 and 510)

Full Marks: 100

Pass Marks: 40

UNIT-I- Practical of 507 (Science of Sports Training) :

25 Marks

1. Study of Judgment of Load by means Physical and Physiological Parameters.
2. Measurements of Strength
3. Measurement of Speed,
4. Measurement of Endurance,
5. Measurement of Flexibility
6. Measurement of Coordinative Abilities

UNIT-II- Practical of 508 (Methodology of Research in Physical Education and Sports): 25 Marks

1. Preparation of Questionnaire and Conducting Interview Schedule
2. Preparation and Practical Performance of a Pilot Study
3. Submission of Research Abstract
4. Preparation of a Research Report

UNIT- III- Practical of 509 (Physiology of Exercise in Physical Education and Sports): 25 Marks

1. Study of Electrical Apparatus used for Stimulating Excitable Tissue
2. To Draw Simple Muscle Curve
3. Effect of Temperature on Muscle Contraction
4. Study of Heart Rate and Electrocardiogram (ECG), Measurement of Vital Capacities
5. Measurement of Workload : Bench Stepping, Treadmill and Bicycle Ergometer

UNIT- IV- Practical of 510 (Sports Medicine):

25 Marks

1. Demonstration of Control of Haemorrhage by Direct and Indirect Methods in the different Body Parts.
2. Demonstration of Application of Different Types of Bandages and their Knots.
3. Demonstration of Different Types of Artificial Respiration.
4. Preparation of Athletic Diet Chart and Weight Management.

Syllabus

MPES - Second Semester

PES-512

Practical Paper:

(Games and Sports Specialization)

MPES – IB2 - Games and Sports Specialization (Practical Paper):

Full Marks: 100

Pass Marks: 40

The area which are applicable to all the Games / Sports Specialization:

- | | | |
|------|--|-------------------|
| I. | Drawing / Marking and Measurement of Playing Field / Court of the Specialized Game / Sport. | 10 Marks |
| II. | Scientific Training of the Specialized Game / Sport for Improvement of Skills, Techniques and Tactics. | 10 Marks |
| III. | Officiating and Coaching of the Specialized Game / Sport | 10 Marks |
| IV. | Lead-up Games and their application to the Specialized Game / Sport. | 10 Marks |
| V. | Three Coaching lesson Plan of the Specialized Game / Sport. | 20 x 3 = 60 Marks |

Syllabus
MPES-Third Semester
PES – 613
Specialisation Paper
Sports Psychology- 1
(Psychology in Physical Education and Sports)

Full Marks: 80

Pass Marks: 32

Unit-I- Introduction of Sports and Exercise Psychology : -**16 Marks**

- i) Meaning, Definition and History of Sports Psychology
- ii) Nature and Scope of Sports Psychology
- iii) Division of Sports Psychology
- iv) Importance of Sports Psychology in Physical Education and Sports

Unit-II- Motivation and Performance: -**16 Marks**

- i) Concept, Definition and Types of Motivation
- ii) Phases of Motivation – Motive , Drive, Need
- iii) Classification of Motivation – Organic Motives, Emergency Motives, Objectives Motives
- iv) Factors Influencing Motivation in Physical Education and Sports.
- v) Theories of Motivation – Theory of Aggression, Theory of Neurotic Conflict, Theory of Competence

Unit- III- Emotion, Arousal and Anxiety in Sports :-**16 Marks**

- i) Meaning of Emotion, Anxiety and Arousal
- ii) Anxiety in Sports – Concept, Definition of Anxiety
- iii) Types of Anxiety - Somatic Anxiety and Cognitive Anxiety
- iv) Aggression – Types of Aggression
- v) Stress and Sports Performance -

Unit- IV- Personality and Sports Performance: -**16 Marks**

- i) Meaning, Definition and Characteristics of Personality
- ii) Dimensions of Personality – Physique, Mind and Intellect, Emotional Stability, Sociability
- iii) Factors affecting the Development of personality – Heredity and Environment
- iv) Theories of Personality – Theory of psychoanalytic View-point, Id, Ego and Superego
- v) Personality and Sports Performance

Unit- V- Play and Learning :-**16 Marks**

- i) Meaning and Definition of Play
- ii) Work and Play
- iii) Theories of Play - Surplus energy Theory, Anticipatory Theory, Recreational Theory, Cathartic Theory, Instinct practice Theory
- iv) Learning – Definition and Types of Learning
- v) Theories of Learning – Association theories, Cognitive Theories And Cybernetic Theories

Reference Book:

1. Weinberg, R.S. and Gould, D. (1995)- Foundation of Sports and Exercise Psychology (Vol. 4), Champaign, IL. Human Kinetics.
2. Feldman, S.R. (2009)- Essential of Understanding Psychology (7th Ed), New Delhi: Pearson
3. Alderman, R.B. – Psychological Behaviour in Sports, Philadelphia, London, Sounders Company.
4. Suinn. M. Richard, Psychology in Sports- Methods and Applications, Surjit Publications, 7-K, Kolhapur Rd. Kamla Nagar, Delhi
5. Kamlesh, M.L. – Psychology in Physical education and Sports, Metropolitan Book Company, new Delhi

Syllabus
MPES-Third Semester
PES - 614
Specialisation Paper
Sports Psychology - 2

(Developmental Psychology and Sports Performance)

Full Marks: 80

Pass Marks: 32

Unit-I- Growth and Development :-

16 Marks

- i) Meaning and Definition of Growth and Development
- ii) General principles of Growth and Development
- iii) Transfer of Training – Theories of Transfer of Training,
- iv) Types of Transfer of Training in Sports – Positive Transfer, Negative Transfer and Zero Transfer

Unit-II- Development During Infancy and Childhood :-

16 Marks

- i) Stages of Growth and development – Infancy, Childhood, Adolescence and Adulthood
- ii) Changes During Infancy – Physical, Cognitive and Social Changes
- iii) Changes During Adolescence - Physical, Cognitive and Social Changes
- iv) Changes During Adulthood - Physical, Cognitive and Social Changes

Unit- III- Motor Development and Motor Learning:-

16 Marks

- i) Meaning and Types of Motor Learning
- ii) Principles of Motor skill Learning – Maturity, Cognitive Ability, Practice, Goal Setting and Feedback
- iii) Factors affecting Motor Development and Motor learning

Unit – IV- Transfer of Training in Sports :-

16 Marks

- i) Concept of Transfer of Training
- ii) Psychological Preparation for Sports Performance and Sports Competition – Need and dimensions of Psychological Preparation
- iii) Long Term Psychological Preparation
- iv) Short Term Psychological Preparation

Unit – V – Group Cohesion and Leadership in Sports :-

16 Marks

- i) Concept and Characteristics of Group
- ii) Group Cohesion – Meaning and Factors Affecting group Cohesion
- iii) Group Dynamics – Values and Development of Group Dynamics
- iv) Leadership in Sports – Concept, Principles, Types and Functions of Leadership
- v) Spectators – Types and Effect on Sports Performance

Reference Book:

1. Baron, R.A. Byrne. D., & Bhardwal, G. (2010)- Social Psychology (12th Ed.), New Delhi, Pearson
2. Cratty, B.J. (2000)- Psychology of Contemporary Sports, Human Kinetics Publishers, Champaign Illinois.
3. Cratty, Braynat, J., - Movement Behaviour and Motor Learning, Philadelphia, Lea and Febiger, (1973), Ed.3
4. Weinberg, R.S. and Gould, D. (1995)- Foundation of Sports and Exercise Psychology (Vol. 4), Champaign, IL. Human Kinetics.
5. Feldman, S.R. (2009)- Essential of Understanding Psychology (7th Ed), New Delhi: Pearson
6. Alderman, R.B. – Psychological Behaviour in Sports, Philadelphia, London, Saunders Company.
7. Suinn. M. Richard, Psychology in Sports- Methods and Applications, Surjit Publications, 7-K, Kolhapur Rd. Kamla Nagar, Delhi
8. Kamlesh, M.L. – Psychology in Physical education and Sports, Metropolitan Book Company, new Delhi

Syllabus

MPES-Third Semester

PES - 615

(Applied Statistics and Computer Application in Sports)

Full Marks: 80

Pass Marks: 32

Unit-I-Basics of Statistical Analysis :-

16 Marks

- i) Statistics: Meaning, Definition, Need and Importance
- ii) Meaning of terms: population, sample, data, types of data 18 lectures
- iii) Class Intervals: Raw Score, Continuous and Discrete Series, Class Distribution, Construction of Tables
- iv) Graphical Presentation of Class Distribution: Histogram, Frequency Polygon, Frequency Curve, Cumulative Frequency Polygon, Ogive Curve, Pie Diagram

Unit- II-Statistical Models in Physical Education and Sports:-

16 Marks

- i) Measures of Central Tendency: Mean, Median and Mode - Meaning, Definition, Importance, Advantages, Disadvantages and Calculation from Grouped and Ungrouped Data
- ii) Measures of Variability: Standard Deviation, Quartile Deviation, Mean Deviation and Range,
- iii) Percentiles and Quartiles- Meaning, Definition, Importance, Computation from grouped and ungrouped Data
- iv) Meaning, purpose, calculation and advantages of scoring scales, sigma scale, Z-scale, Hull scale, T-Scale

Unit – III-Inferential Statistics :-

16 Marks

- i) Test of significance, Independent 't' test , Dependent 't' test, chi-square test,
- ii) level of confidence and interpretation of data
- iii) Meaning of correlation- co-efficient of correlation, calculation of co-efficient of correlation by product moment method and rank difference method
- iv) Concept of ANOVA (one way) and theory of ANCOVA

Unit –IV-Introduction to Computer :-

16 Marks

- i) Meaning, need and importance of Information and Communication Technology (ICT). Application of Computers in Physical Education
- ii) Components of Computer, Input and Output Device
- iii) Application Software used in Physical Education and Sports
- iv) Internet and its uses

Unit –V- Selection of Appropriate Data Analysis Techniques :-

16 Marks

- i) Research / Data Analysis Blue Print
- ii) Major Determinants of Choice of Statistical Method
- iii) Choosing Between the Z-test and t-test
- iv) Interpreting the P-value
- v) Introduction to SPSS and MS-Excel

References:

1. Garrett, H.E. (1981). *Statistics In Psychology And Education*. New York: Vakilsfeffer And Simon Ltd.
2. Marilyn, M.& Roberta, B.(n.d.).*Computers in your future*. 2nd edition, India: Prentice Hall.
3. Milke, M.(2007). *Absolute beginner's guide to computer basics*. Pearson Education Asia.
4. Sinha, P. K. & Sinha, P. (n.d.).*Computer fundamentals*. 4th edition, BPB Publication.
5. Sivaramakrishnan S. (2006) *Statisticks For Physical Education*. Delhi, Friends Publication
6. Thirumalaisamy (1998), *Statisticks In Physical Education*. Karaikudi, Senthilkumar Publications
7. Thomas, J.R., Nelson, J.K. & Silverman, S.J. (2011). *Research Method in Physical Activity*. U.S.A: Champaign, IL: Human Kinetics Books.
8. Verma, J. P. (2000). *A Text Book on Sports Statistics*. Gwalior: Venus Publications.
9. Field, A(2013)- *Discovering Statistics using IBM SPSS Statistics*, Sage
10. Andy, F (2016)- *An Adventure in Statistics, The Reality Enigma*, SAGE
11. Gupta, S (2016) – *Fundamentals of Statistics*, New Delhi: Himalaya Publishing House Pvt. Ltd.

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MPES-Third Semester

PES - 616

(Test, Measurement and Evaluation in Physical Education)

Full Marks: 80

Pass Marks: 32

Unit-I- Test, Measurement and Evaluation :-

16 Marks

- i) Meaning and Definition of Test, Measurement and Evaluation
- ii) Types of Test, Measurement and Evaluation
- iii) Relationship among Test, Measurement and Evaluation
- iv) Importance of Test, Measurement and Evaluation
- v) Principles of Test and Measurement in Evaluation

Unit-II- Test and Administration of Testing Program :-

16 Marks

- i) Criteria of Test Selection
- ii) Administration of Testing program
- iii) Construction of Standard Knowledge and Skill Test
- iv) Construction of Standardization of Standard Knowledge and Skill Test
- v) Health and Performance Related Fitness – Body Composition and Cardio-Respiratory fitness

Unit- III- Test for Fitness :-

16 Marks

- i) Kraus-Weber Test and AAHPER Test
- ii) General Motor Fitness Test (Dr. Harold M. Barrow)
- iii) Muscular Endurance Test
- iv) Cardiovascular Fitness Test – HST or LSU Test, Rockport One Mile Test
- v) Rikli and Jones Senior Citizen Fitness Test

Unit – IV- Motor Performance Related Fitness Test-

16 Marks

- i) Measurement of Power – Vertical (Sargent) Jump / Standing Broad Jump, Two-Hand Medicine Ball Put
- ii) Measurement of Coordinative Ability – Burpee or Squat Thrust test, Shuttle Run, SEMO Test
- iii) Measurement of Speed and Reaction Test – Nelson's Hand and Foot Speed of Reaction Test, Nelson Speed of Movement Test

Unit – V – Sports Skill Test :-

16 Marks

- i) Badminton
- ii) Basketball
- iii) Football
- iv) Hockey
- v) Volleyball

Book Reference :-

1. Cohen R.J. and M.E. Swerdhik- Psychological Testing and Measurement: An Introduction to Test and Measurement
2. Kansal, D.K. – Text Book of Test, Measurement, Evaluation and Sports Selection for All Sports and Spiritual Sciences publication, New Delhi 2008
3. Barry L. Johnson and Jack K. Nelson - Practical Measurements for Evaluation in Physical Education , Surjeet publications Delhi

Syllabus

MPES – Third Semester

PES - 617

Practical of

PES (613, 614, 615 and 616)

Full Marks: 100

Pass Marks: 40

UNIT-I- Practical of PES-613 (Psychology in Sports and Physical Education):

25 Marks

1. Measurement of Personality and Personality profile (Questionnaire)
2. Assessment of Sports Anxiety
3. Measurement of Aggression
4. Measurement of Motivation
5. Assessment of Stress and Its Management

UNIT-II- Practical of PES- 614 (Developmental Psychology and Sports Performance):

25 Marks

1. Measurement and Analysis of Motor Skills
2. Hand Eye Co-ordination
3. Foot Eye Co-ordination
4. Hand-Foot Eye Co-ordination
5. Assessment of Leadership Quality and Team Building Games

UNIT- III- Practical of PES-615 (Applied Statistics and Computer Application in Sports):

25 Marks

1. Computation of Mean, media and Mode using MS Excel
2. Competition of Measures of Depression Using SPSS
3. Preparation of Histogram and Bar Graph
4. Preparation of Pie Graph
5. Preparation of Frequency Polygon Curve

UNIT- IV- Practical of PES-616 (Test, Measurement and Evaluation in Physical Education):

25 Marks

Skill Test –

1. Basketball - Johnson Basketball Ability Test
2. Volleyball - Brady Volleyball Skill Test and Russell-Lange Volleyball Test
3. Hockey – French Hockey Test, Harbans Singh Hockey Test
4. Football – McDonald Soccer Test
5. Badminton – Lockhart and McPherson Badminton Skill Test,

Syllabus

MPES – Third Semester

PES - 618

Practical Paper:

(Games and Sports Specialization)

MPES – PES -618:- Games and Sports Specialization (Practical Paper): Full Marks: 100

Pass Marks: 40

The area which are applicable to all the Games / Sports Specialization:

- | | | |
|------|--|--------------------------|
| I. | Drawing / Marking and Measurement of Playing Field / Court of the Specialized Game / Sport. | 10 Marks |
| II. | Scientific Training of the Specialized Game / Sport for Improvement of Skills, Techniques and Tactics. | 10 Marks |
| III. | Officiating and Coaching of the Specialized Game / Sport | 10 Marks |
| IV. | Lead-up Games and their application to the Specialized Game / Sport. | 10 Marks |
| V. | Three Coaching lesson Plan of the Specialized Game / Sport. | 20 x 3 = 60 Marks |

Syllabus
MPES-Fourth Semester
PES – 619
Specialisation Paper
Sports Psychology - 3
(Psychology of Sports Coaching and Sports Performance)

Full Marks: 80

Pass Marks: 32

Unit-I- Cognitive Process- Memory and Thinking : -**16 Marks**

- i) Introduction of Cognitive Process –
 - a. Types of Cognitive processes –
 - b. Basic Cognitive Processes
 - c. Higher cognitive Processes
- ii) Types of Memory –
 - a. Sensory Memory
 - b. Short-term Memory
 - c. Long-term Memory
- iii) Thinking – Types of Thinking

Unit-II- Psychology and Sports Performance : -**16 Marks**

- i) Attentiveness
- ii) Preparedness
- iii) Concentration
- iv) Confidence
- v) Courage
- vi) Imagery
- vii) Improvisation

Unit-III- Competition and Co-operation : -**16 Marks**

- i) Definition of Competition
- ii) Competition in Sports
- iii) Advantages and Disadvantages of Competition in Sports
- iv) Motivation and Sports Competition
- v) Sports Competition as a Social Necessity
- vi) Psychological Aspects of Competitive Sports Performance

Unit-IV- Psychological Preparation and Sports Competition : -**16 Marks**

- i) Phenomenon of Competitive Sports
- ii) Psychological Preparation of Sports Competition
- iii) Long Term Psychological Preparation
- iv) Short Term Psychological Preparation
- v) Factors Affecting Psychological Preparation

Unit-V- Psychological skill training For Activation and Relaxation : -**16 Marks**

- i) Psychological Skill Training
- ii) Content of Psychological Skill Training
- iii) Activation of Psychological Skill Training
- iv) Relaxation in Psychological Skill Training
- v) Spectators and Sports Performance

Reference Book:

6. Weinberg, R.S. and Gould, D. (1995)- Foundation of Sports and Exercise Psychology (Vol. 4), Champaign, IL. Human Kinetics.
7. Feldman, S.R. (2009)- Essential of Understanding Psychology (7th Ed), New Delhi: Pearson
8. Alderman, R.B. – Psychological Behaviour in Sports, Philadelphia, London, Sounders Company.
9. Suinn. M. Richard, Psychology in Sports- Methods and Applications, Surjit Publications, 7-K, Kolhapur Rd. Kamla Nagar, Delhi
10. Kamlesh, M.L. – Psychology in Physical Education and Sports, Metropolitan Book Company, new Delhi

Syllabus

MPES-Fourth Semester

PES – 620

Specialisation Paper

Sports Psychology – 4

(Psychological Aspects in Physical Education and Sports)

Full Marks: 80

Pass Marks 32

Unit-I - Individual Differences and Sports : -

16 Marks

- i) Types of Individual Differences -
 - a. Physical Differences
 - b. Psychological Differences
 - c. Socio-cultural Differences
- ii) Special Consideration of Women's Participation in Sports –
 - a. Menarche and Menstrual Dysfunction
 - b. Female Athlete Triad
- iii) Causes of Individual Differences – Heredity, Sex and Race

Unit-II - Sensory Perceptual Process and Sports : -

16 Marks

- i) Sensory Perceptual Process – Meaning and Stages of Sensory Perceptual Process
- ii) Mechanism of Sensory Perceptual Process
- iii) Classification of Senses and Sensory Perceptual process
- iv) Implication of Sensory Perceptual Process in Sports Activities
- v) Importance of Perception in Sports, Factors in Perception

Unit-III – Motor Skill Learning and Sports : -

16 Marks

- i) Laws of Learning – Law of Readiness, Law of Effect, Law of Exercise
- ii) Motor Learning
- iii) Motor Skill and Motor Skill Development Stages
- iv) Principles of Motor Skill Learning -
 - a. Maturity
 - b. Cognitive Ability
 - c. Practice
- v) Laws of Learning – Law of Readiness, Law of Effect, Law of Exercise

Unit-IV – Transfer of Training and its Implication in Sports :-

16 Marks

- i) Concept of Transfer of Training
- ii) Types of Transfer of Training and Their implication
 - a. Positive Transfer
 - b. Negative Transfer
 - c. Zero (Neutral) Transfer
- iii) Different Theories of Play

Unit-V – Socio-psychological Aspect of Sports : -

16 Marks

- i) The Social Group
- ii) Sociological View Point of Growth and Development
- iii) Developing Group Mind Through Sports
- iv) Group Dynamics – Development of Group Dynamics
- v) Group Cohesion – Factors Affecting Group Cohesion

Reference Book:

11. Weinberg, R.S. and Gould, D. (1995)- Foundation of Sports and Exercise Psychology (Vol. 4), Champaign, IL. Human Kinetics.
12. Feldman, S.R. (2009)- Essential of Understanding Psychology (7th Ed), New Delhi: Pearson
13. Alderman, R.B. – Psychological Behaviour in Sports, Philadelphia, London, Sounders Company.
14. Suinn. M. Richard, Psychology in Sports- Methods and Applications, Surjit Publications, 7-K, Kolhapur Rd. Kamla Nagar, Delhi
15. Kamlesh, M.L. – Psychology in Physical education and Sports, Metropolitan Book Company, new Delhi

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MPES- Fourth Semester

PES - 621

(Biomechanics and Kinesiology in Sports)

Full Marks: 80

Pass Marks: 32

Unit-I- Kinesiology in Physical Education and Sports : -

16 Marks

- i) History, Scope and Functions of Kinesiology.
- ii) Importance of Kinesiology in Physical Education and Sports.
- iii) Plane and Axes of Human Body.
- iv) Movement of Major Body parts.
- v) Mechanical Analysis of fundamental Movements – Walking, Running, Jumping, Throwing, Pulling and Pushing
- vi) General Mechanical Principles applied to Throwing, Striking and Kicking Skills.

Unit-II- Body Lever and Sports : -

16 Marks

- i) Lever – Meaning and Classification of Lever.
- ii) Leverage of the Principal Muscle used in Sports.
- iii) Mechanical Advantage and Application of Lever in Sports.
- iv) Origin, Insertion and Action of the major Skeletal Muscles in Life and Sports.
- v) Posture and its Deformities with their Correction Measures.

Unit- III- Biomechanics in Physical Education and Sports : -

16 Marks

- i) History and Modern Trends of Biomechanics
- ii) Importance of Biomechanics – Physical Educator, Coach, Sportsperson.
- iii) Motion – Concept of Motion, Form of Motion, Types of Motion
- iv) Laws of Resultant Force – Principles related to the Law of Acceleration
- v) Laws of Reciprocal Actions – Principles related to the Law of Counter Action.
- vi) Projectile – Projectile Motion, Factors affecting to Projectile Trajectory, Principles of Projections

Unit- IV- Fundamentals of Biomechanics in Physical Education and Sports : -

16 Marks

- i) Aerodynamics
- ii) Bernoulli's Principle
- iii) Forces Impacting Air Flow
- iv) Sports Ball Aerodynamics
- v) Water Aerodynamics (Hydrodynamics)
- vi) Atmosphere, Temperature, Pressure, Density and Humidity

Unit- V- Motor Skills and application in Physical Education and Sports : -

16 Marks

- i) Linear and Angular Kinematics and Kinetics.
- ii) Angular (Rotational) Motion and its Components
- iii) Linear Motion and its Components
- iv) Friction, Spin, Impact and Elasticity
- v) Air and Water Dynamics
- vi) Atmosphere, Temperature, Pressure, Density and Humidity

Reference Book:

1. Katharine F. Wells, Kathryn Luttgens, "Kinesiology – Scientific basis of human Motion", Sounders College Publishing, West Washington Square, Philadelphia- PA 19105
2. Ramesh Rai – Biomechanics- Mechanical Aspects of human Motion, AGRIM Publication, HL 224 Phase IX, Mohali, Punjab
3. Dunn, Scientific Principles of Coaching, Prentice hall, Inc. new jersey
4. Miller and Nelson, Biomechanics of Sports, Log and Fahier, Philadelphia
5. Legan and Mckinney, Anatomic Kinesiology, Inc. Brown Company
6. Bunn, John W., scientific Principles of Coaching, Eagle Wood Cliffs, N.J. Prentice Hall Inc.

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MPES- Fourth Semester

PES – 622

Optional Paper - a

(Educational Technology and Pedagogy in Physical Education)

Full Marks: 80

Pass Marks: 32

16 Marks

Unit – I Concept of Educational Technology :-

- i) Education and Educational Technology- Meaning and Definitions
- ii) Objectives of Educational Technology
- iii) Types of Educational Technology
- iv) Uses and Significance of Educational Technology (in Indian Context)

Unit –II Communication Process :-

16 Marks

- i) Meaning of Communication
- ii) Types and Characteristics of Communication
- iii) Classroom Communication:
Verbal, Inter-cultural And Group Communications
- iv) Barriers To Effective Communication

Unit –III Teaching Aptitude :-

16 Marks

- i) Nature, Objectives and Characteristics of Teaching
- ii) Levels of Teaching (memory, understanding and reflective)
- iii) Learner Characteristics : Characteristics of Adolescent and Adult
Learners (academic, social, emotional and cognitive), Individual Differences
- iv) Factors Affecting Teaching Related to : Teacher, Learner, Support Material
and Instructional Facilities

Unit – IV Pedagogies of Higher Learning and Physical Education :-

16 Marks

- i) Teacher centered vs Learner centered Methods
- ii) Offline v/s Online Methods (Swayam, Swayamprabha, MOOCs etc.)
- iii) Teaching support –Traditional and ICT based
- iv) Impact of Technology in Physical Education and Sports

Unit – V Evaluation Systems :-

16 marks

- i) Elements And Types Of Evaluation
- ii) Evaluation In Choice Based Credit System, CBCS in Higher Education
- iii) Computer Based Testing
- iv) Innovations In Evaluation Systems

Reference:

- Bhardwaj, A. (2003). *New media of educational planning*. New Delhi: Sarup and Sons.
- Bhatia, & Bhatia, (1959). *The principles and methods of teaching*. New Delhi: Doaba House.
- Kochar, S.K. (1982). *Methods and techniques of teaching*. New Delhi: Sterling Publishers Pvt. Ltd.
- Sampath, K. Pannirselvam, A. & Santhanam, S. (1981). *Introduction to educational technology*. New Delhi: Sterling Publishers Pvt. Ltd.
- Walia, J.S. (1999). *Principles and methods of education*. Jullandhar: Paul Publishers

Syllabus

MPES- Fourth Semester

PES – 622

Optional Paper - b

(Sports Journalism and Mass Media)

Full Marks: 80

Pass Marks: 32

Unit- I - Introduction :-

16 Marks

- i) Meaning and Definition of Journalism
- ii) Professional and Ethical Standards
- iii) Characteristics of Sports Journalist
- iv) Reporting Sports Events
- v) National and International Sports News Agencies

Unit- II- Sports Bulletin :-

16 Marks

- i) Concept of Sports Bulletin
- ii) Journalism and Sports Education
- iii) Structure of Sports Bulletin
- iv) Types of Bulletin
- v) Structure, Content and Style
- vi) Sports Bulletin as an Integral part of Physical Education

Unit – III - Mass Media :-

16 Marks

- i) Mass Media in Journalism
- ii) Radio and T.V. Commentary
- iii) Sports Presenter/Studio Host and Running Commentary on Radio
- iv) Sports Expert's Comments
- v) Role of Advertisement in Journalism
- vi) Sports Photography – Equipment, Editing, and Publishing

Unit – IV - Report Writing on Sports :-

16 Marks

- i) Brief review of Olympic Games
- ii) Modern Games
- iii) Asian Games
- iv) Common Wealth Games World Cup
- v) National Games and Indian Traditional Games
- vi) Organization of Press Meet

Unit- V – Journalism :-

16 Marks

- i) Sports organization and sports journalism
- ii) Socio-political significance
- iii) General news reporting and sports reporting
- iv) Methods of editing a Sports report
- v) Analysis of Sports News (Sports News for Doordarshan and Radio)
- vi) Interview with an elite Player and Coach

References:

1. Ahiya B.N. (1988) Theory and Practice of Journalism: Set to Indian context Ed3. Delhi : Surjeet Publications
2. Ahiya B.N. Chobra S.S.A. (1990) Concise Course in Reporting. New Delhi: Surjeet Publication
3. Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication
4. Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.
5. Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication Mohit Chakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka Publication.
6. Padmanabhan. A & Perumal A (2009), Science and Art of Living, Madurai: Pakavathi Publication
7. Shiv Khera (2002), You Can Win, New Delhi: Macmillan India Limited.
8. Varma A.K. (1993) Journalism in India from Earliest Times to the Present Period.
9. Sterling publication Pvt. Ltd. Venkataiah. N (2009) Value Education,- New Delhi: APH Publishing Corporation. 43

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MPES – Fourth Semester
PES - 623
Practical of
PES (619, 620, 621 and 622)

Full Marks: 100
Pass Marks: 40

UNIT-I- Practical of PES-619 (Psychology of Sports Coaching and Sports Performance)): 25 Marks

1. Memory Experiments
2. Intelligence Testing
3. Measurement of Attention
4. Emotional Intelligence Test

UNIT-II- Practical of PES- 620 (Psychological Aspects in Physical Education and Sports): 25 Marks

1. Measurement of Cohesion
2. Measurement of Strength (Dynamometer)
3. Measurement of Aggression
4. Evaluation of Team Building Games

UNIT- III- Practical of PES-621 (Biomechanics and kinesiology in Sports) 25 Marks

1. Measurement of Body Anthropometry
2. Application of Newton's Laws of Motion
3. Mechanical Analysis of Walking, Running
4. Analysis of Human Body leverage Function

UNIT- IV- Practical of PES-622 - Based on the Selected Optional Paper (Either (a) or (b))

a - (Educational Technology and Pedagogy in Physical Education) 25 Marks

1. Prepare Different Classification of Teaching Aids
2. Application Computer assisted Techniques
3. Application of Micro-teaching Techniques
4. Application of Team Teaching Techniques

b - (Sports Journalism and Mass Media) 25 Marks

1. To observe Matches of Games and Sports and Prepare a Report and News of the Same
2. Visit to the News Paper Office and TV Centre to know Various Departments and their Working System
3. Collection of Newspaper Cuttings of Sports News and Prepare an Album of the same.

Syllabus
MPES – Fourth Semester
PES - 624
Dissertation

Full Marks: 100

Pass Marks : 40

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| 4. | Submission of Dissertation (Six copies) | 50 Marks |
| 5. | Presentation | 30 Marks |
| 6. | Viva-voce | 20 Marks |