

Scheme of Examination of M.P.E 2014-15**M.P.E. 1st Semester**

Paper	Nomenclature of paper	Marks Theory		Pract. Exams	Total marks
		External	Internal		
I.	Professional Preparation and Curriculum Design in Physical Edu. and Sports Sc.-I	80	20	-	100
II	Kinesiology	80	20	-	100
III	Anatomy & Physiology-I	80	20	-	100
IV	Educational Technology & Pedagogic Techniques in Physical Education	80	20	-	100
V	Techniques of officiating and Coaching-I	80	20	-	100
VI	Optional: Anyone of the following:- a) Health Education (Theory) b) Yoga (Theory)	50	10	40	60+40=100
VII	Teaching lesson -Games	-	-	100	100
VIII	Teaching Lesson-Athletics	-	-	100	100
	Total:	450	110	240	800

Activities to be taken up during 1st Semester

- A Games: - Basketball, Kho-Kho, Hockey, Handball & Badminton
B Athletics: - Sprints, Long Jump, Pole-vault, Hurdles, Javelin & Discus-throw.

Note: -

The practical classes shall be held as per the scheme of each semester. The final practical examinations for each semester shall be conducted by external & internal examiners at the end of each semester. Minimum Five students must opt an optional paper to run the options.

M.P.E. (2nd Semester)

Paper	Nomenclature of paper	Marks Theory		Practical marks	Total marks
		External	Internal		
IX	Professional Preparation and Curriculum Design in Physical Edu. and Sports Sc.-II	80	20	-	100
X	Bio-Mechanics in Phy. Edu.	80	20	-	100
XI	Anatomy & Physiology-II	80	20	-	100
XII	Sports Management	80	20	-	100
XIII	Techniques of Officiating & Coaching-II	80	20	-	100
XIV	Teaching lesson -Games	-	-	100	100
XV	Teaching Lesson-Athletics	-	-	100	100
	Total marks	400	100	200	700

Grand Total (1st & 2nd Semesters) 800+700=1500

Activities to be taken up during 2nd Semester

- A Games:- Volleyball, Kabaddi, Football. Cricket & Wrestling
B Athletics:- Middle/Long Distance Race, High Jump, Triple -Jump, Relay Race and Hammer –throw.

Distribution of marks for Practicals to be conducted by the External & Internal Examiners

Semester 1st & 2nd (Teaching Lessons) 100 marks

- | | | |
|-----|--|----------|
| (a) | Teaching Lesson in Game/Athletics (Demonstration, Presentation, Fault Correction & Use of Teaching Aids) | 40 marks |
| (b) | Viva (Marking, Rules and Regulations and Officiating) | 40 marks |
| (c) | Final Lesson Plan | 10 marks |
| (d) | Note-book of Lesson Plan | 10 marks |

Note: -

The practical classes shall be held as per the scheme of each semester. The final practical examinations for each semester shall be conducted by external & internal examiners at the end of each semester.

M.P.E. (Semester-1st) 2014-15

Paper-I Professional Preparation and Curriculum Design in Physical Education and Sports Sc.-I

Max. Marks: 100

External Marks: 80

Internal Marks: 20

Time: 3 hours

NOTE:-

(a) For paper setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 16 marks. It will comprise of 8 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer Type questions will carry 16 marks each.

(b) for candidates

1. Attempt five questions in all, selecting atleast one questions from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Course Contents

UNIT-I

- Concept of Physical Education – Meaning and Definition
- Foundations of Professional Preparation, Features of Indian Democracy with regard to Contribution of Physical Education & Sports
- Understanding of Foundations of Physical Education and Sports
- Meaning of Profession, Preparation, Curriculum and Design.
- Basis of Professional Preparation in Physical Education and Sports Sciences.

UNIT-II

- Forces and Factors Affecting Educational Policies and Prgrammes
- Function of the State Govt. in implementation of the Educational and Professional Preparation of Physical Education and Sports Programme.

UNIT-III

- Contribution, Aims and Purposes of General Education in the Professional Preparation of Physical Education and Sports,
- Aims and Objectives of Physical Education
- Historical Review of Physical Education in USA and Russia
- Historical Review of Sweden & Denmark.

UNIT-IV

- Historical Review of Professional Preparation in Greece & Rome.
- Professional Educational Qualification Desirable for Physical Education Teachers for Library, Laboratory and Research.
- Historical Review of Professional Preparation in United Kingdom and Germany.

Suggested Readings

1. Gupta Rakesh, Akhilesh, Santosh, Professional Preparation and Curriculum Design in Physical Education
2. Batia, K.K. and Narang, (1991) Principles of Education (Methods and Technique) Ludhiana Prakash Brothers Educational Publisher,
3. Bhatia, K.K.Kadian, K.S.Chanda, PC and Sharma (1990) Contemporary problem of Indian Education, Jalandhar Prakash Brother Educational Publishers,..
4. Graily, J.Byrant, Career Potentials in Physical Activity (1990) New Jersy, Prentice Hall in Englowood cliffs USA.

M.P.E. (Semester-1st)
Paper-II Kinesiology

Max. Marks: 100
External Marks: 80
Internal Marks: 20
Time: 3 hours

NOTE:-

For Paper Setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 16 marks. It will comprise of 8 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer type questions will carry 16 marks each.

(b) For Candidates

1. Attempt five questions in all, selecting atleast one question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Course Contents:

UNIT-I

- Concept, Scope and Role of Kinesiology in Physical Education and Sports
- Anatomical Body Position
- Meaning and Factors Affecting the Range of Motion
- Characteristics of Skillful Performance
- Fundamental Movements of Joints and their Terminology
- Meaning of Planes, Aims and their Types
- Axis and Planes involved in Joints Movements
- Types of Muscular Contractions.

UNIT-II

- Structural Classification of Skelton Muscles
- Functional Classification of Skelton Muscles
- Slow & Fast Twitch Muscle Fibers
- Methods of Studying the Action of Muscles
- Tendon Action of two Joints Muscles
- Body Deformities and their Remedies (a) Kyphosis (b) Lordosis (c) Scolosis (d) Knock-knee (e) Flat-foot

UNIT-III

- Classification & Characteristics of Diarthrosis joints
- Structure & Ligamentous enforcement of shoulders Girdle and shoulder, Elbow and Ankle joints
- The Attachment and Action of the Muscles of following Joints:
- A) Shoulder Girdle and Shoulder:- Trapezius, Levator scapulae, Rhomboid, serratus anterior, Pactorlis minor and major, Deltoid, Supra spinatus, Teres major, Infra and Teres minor, Spinatus and Biceps.
- B) Elbow Joint: Biceps Brachii, Pronator teres, Supinator, Triceps brachii, Brachialis, Pronator quadratus,
- C) Ankle and Foot: - Gastrocnemius, Soleus, Tibialls Anterior and Posterior, Extensor Digitorum Longus, Extensor & Flexour Hallucis Longus,

UNIT-IV

- Structure & Ligamentous enforcement of Hip, Knee and Spinal Column joints, The Attachment and Action of the following muscles:
- HIP Joint: Iliopseas, Pectineus, Rectusfemoris, Sartorius, Tensor fasciae latae, Glteus maximus, minimous and medius; Adductor Magnus, Longus and Brevis.
- KNEE JOINT: Quadriceps-Rectus Femoris, Vastus Lateralis, Vastus Ingtermedius and vastus medialis, Hamstring Group-Biceps Femoris, Semimembranosus Semitendinosus, Sartorius, Gastrocnemius and Popliteus.
- SPINAL COLUMN: Levator scapula; Rectus abdominis; Sternocleidomastoid; Obliquus Internus and externus abdominis.

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Suggested Readings

1. Zatsiorsky V.M. (1998), Kinematic of Human Motion
2. Kelly DL (1971), Kinesiology, Fundamental of Motion
3. Lattiganus K.Others, Kinesiology () Scientific Basis of Human Motion
4. Jenson, C.R. & Schult, G.W., Applied Kinesiology: The Scientific study of human performance (2nd edition) (1977), New York MC Grah.
5. Hawley, G. (1937), The Kinesiology of Corrective Exercise, Philadelphia Lea Anno Febiger,

M.P.E. (Semester-1st)
Paper-III Anatomy and Physiology-I

Max. Marks: 100
External Marks: 80
Internal Marks: 20
Time: 3 hours

NOTE:-

For Paper Setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 16 marks. It will comprise of 8 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer type questions will carry 16 marks each.

(b) For Candidates

1. Attempt five questions in all, selecting atleast one question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Course Contents

UNIT-I

Introduction to Anatomy & Physiology & Blood

- Concept of Anatomy and Physiology
- Cell Structure (Animal)
- Properties of living Matter
- The Role of Anatomy and Physiology in Physical Education & Sports
- Blood: Composition, Functions and Types

UNIT-II Muscular System

- Gross and Microscopic Structure of Skeletal Muscles.
- Mechanism of Muscular Contraction and Relaxation
- Nature of Neuromuscular Activity
- Muscle tone, Law of Reciprocal Innervations
- Muscle Work and Fatigue
- Effect of Exercise on Skelton Muscles

UNIT-III

Anatomy of Heart

- Systemic and Pulmonary Circulation, Coronary Circulation
- Mechanism of circulation
- Heart Rate, Stroke Volume, Cardiac Output, Reserve Capacity.
- Cardiac Cycle
- Effect of Exercise on Circulatory System

UNIT-IV

Respiratory System and Blood Pressure

- Structure of Respiratory Organs
- Mechanism of Respiration
- Tissue and Pulmonary Respiration
- Respiratory Capacities
- Effect of Exercise on Respiratory System.
- Blood Pressure-Systolic and Diastolic Pressure
- Measurement of Blood Pressure
- Effect of Exercise on Blood Pressure

Suggested Readings

1. Pearee Evelyn, C. Anatomy and Physiology for Nurses London, (1962) Faber and Falber Ltd.,
2. Pavat, J. Anatomy for Students and Teachers of Physical Education, (1959) London Edward Arnold and Co.

3. Senson Wright: Applied Physiology
4. Willion J.F., Anatomy and Physiology, London W.B. Saunders
5. Best and Taylor, (1960)The living Body, New Delhi, Asian Club House
6. Smount, C.F.V and Medonald, R.J.S.(1969) Physiotherapy, Occupational therapy and Gymnastics, Edward Arnold Pvt. Ltd.,
7. Kiober Grey Anatomy and Physiology

M.P.E. (Semester-1st)

Paper-IV Education Technology and Pedagogic Techniques in Phy. Education

Max. Marks: 100

External Marks: 80

Internal Marks: 20

Time: 3 hours

NOTE:-

For Paper Setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 16 marks. It will comprise of 8 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer type questions will carry 16 marks each.

(b) For Candidates

1. Attempt five questions in all, selecting atleast one question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Course Contents

UNIT-I

- Concept of Class Management: Meaning & Principles
- Specific Principles (Strength of Class, Place and Time of Class, Uniform Class Formation, Safety Measures and Discipline
- Steps of Class Management
- Explanation of Different Teaching Methods for Presenting Material

UNIT-II

- Introduction, General and Specific Lesson Plan
- Principles of Lesson Plan
- Importance of Lesson Plan in Physical Education and Sports
- Meaning, Importance of Audio-Visual Aids.
- Steps of Audio-Visual Aids, Technology Devices in Physical Education and Sports (Adobe Premier, Underwater Camera, Various Measuring Tools, wind Gauges, Foul Indicators, Electronic Gadgets Adobe Photoshop, Microsoft Animation, Laser Beam, Technology, LCD Display) Power Point Presentation.

UNIT-III

- Introduction, Principles for Planning Facilities
- Types of Facilities
- Meaning and Types of Command
- Meaning, Need and Importance of Public Relation in Physical Education.
- Meaning, Objectives and Types of Budget
- Principles of Preparation of Budget

UNIT-IV

- The Need for Office for Physical Education Teacher, its Location and Set Up.
- Handling and Communication-Office Writing, Circulars, Notification and Invitation
- Writing Reports and display, Monitoring
- Concept, Need and Importance of Intramural and Extra Murals
- Types of Tournaments

Suggested Readings

1. Knap Clyde & E: Teaching Methods for Physical Education, MC Graw Hill book Co. Inc.
2. Tirunurayana, C&S Hariharan: Method in Physical Education (South India Press karalkudi India).
3. Kamlesh M.L. & Sangra, M.S.(1982)Methods in Physical Education, Parkash Brothers, Jullundur.
4. Two experienced Professors: Organization and Administration and Recreation in Physical Education, (1982) Prakash Brothers, Jullundhur.
5. Wakharkar D.C. (1967), Manual of Physical Education, Pearl Publications, Bombay.
6. Dhakraborty S.Sports Management Delhi Sports Publications, 1998.

M.P.E. Semester-1st)
Paper-V (Techniques of Officiating & Coaching-I)

Max. Marks: 100
External Marks: 80
Internal Marks: 20
Time: 3 hours

NOTE:-

For Paper Setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 16 marks. It will comprise of 8 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer type questions will carry 16 marks each.

(b) For Candidates

1. Attempt five questions in all, selecting atleast one questions from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Course Contents

UNIT-I

- Concept of Officiating: Meaning, Importance and Principles
- Qualities and Duties of a Good Official
- Responsibilities of a Good Official
- Qualifications and Qualities of a Good Official. General Principles of Training Schedule
- Preparation of Training Schedule

UNIT-II

- Measurements, Marking, Equipments, Basic Fundamentals and Rules and Regulation of following Games
 - a) Football (b) Basketball (c) Kabaddi (d) Badminton (e) Table Tennis
- Glossary of Football, Basketball, Kabaddi, Badminton and Table Tennis
- Outstanding Achievers, Trophies and Awards related with Football, Basketball, Kabaddi, Badminton and Table-Tennis
- Preparation of Score-Sheet of Football, Kabaddi, Badminton and Table Tennis.

UNIT-III

- Measurements, Marking, Equipments, Basic Techniques and Rules and Regulations of following:
 - Track and Field Events of Athletics
- Preparation of Score-Sheet of Tract and Field Events.
- Lay out of Standard Track
- Glossary of Track and Field Events
- Achievers (outstanding) and Trophies and Awards Related with Track & Field Events.

UNIT-IV

- Principles and Methods of Selection of Players/Teams for Various Competitions.
- Fundamentals of Conditioning
- Methods of Conditioning & Training (Progressive Resistance)
- Exercise, Circuite Training, Fartlak, Interval, Weight Training.
- Warming up & Cooling Down
- Competition Strategy for Different Games.

Suggested Readings

1. Rules of games and Sports, YMCA, publishing house Madras.
2. John Bunn – The art of Officiating
3. Clalls – Athletic training

M.P.E. (Semester-1st)
Paper-VI (Option-a) Health Education

Max. Marks: 60
External Marks: 50
Internal Marks: 10
Time: 3 hours

NOTE:-

For Paper Setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 10 marks. It will comprise of 5 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer type questions will carry 10 marks each.

(b) For Candidates

1. Attempt five questions in all, selecting atleast one question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Course Contents

UNIT-I

- Concept of Health: Meaning, Definition and its Different Dimensions
- Characteristics of Healthy Individual
- Concept of Health Education
- Meaning, Need & Importance
- Health Education its Relation with General Education
- Method and Medium of Health Education
- Health during Camp & Traveling
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UNIT-II

- School Health Programme and Health Environment
- Academic Programme and Healthy Programme
- Health Insurance
- Factors Affecting Health and Wellness

UNIT-III

- First Aid and Safety Measures
- Prevention of Communicable, Diseases
- Nutrition Macro and Micro Nutrients
- Weight Management/Obesity Control

UNIT-IV

- Substance Abuse (Smoking, Tobacco, Chewing etc.)
- Health Organization and Administration Structure
- Health Organizations: World Health Organization (WHO) Red-Cross Society National Aids Control Organization (NACO), Mental and Emotional Health, Sex Education.

Suggested Readings

1. Daimple: Foundations of Health
2. Dehl: Healthful living, Mcgraw Hill
3. Physical Education and Health (Dr. A.K.Uppla, Dr. Gautam)
4. Physical and Health Education (Mr. V.D.Sharma & Granth Singh)

Health Education (a) Practical

Max. Marks: 40

Time: 3 hours

1. Collection and Preparation of Teaching aid Materials (Posters, Pamphlets, and CDs etc.)
2. Preparation of School Health Programme
3. Organizing the Health Awareness Programmes
4. First Aid: Sling Bandages, Transportation of the Injured Persons
5. Artificial Respiration, Control of Bleeding Cuts and Wounds, Heat Stroke, Fractures, Stings and Bites of Animals

M.P.E. (Semester-1st)
Paper-VI (Optional-b) Yoga

Max. Marks: 60
External Marks: 50
Internal Marks: 10
Time: 3 hours

NOTE:-

For Paper Setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 10 marks. It will comprise of 5 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer Type questions will carry 10 marks each.

(b) For Candidates

1. Attempt five questions in all, selecting atleast one questions from each unit. Question No. 1 is compulsory. All questions carry equal marks.

UNIT-I

- Concept of Yoga: Meaning, Definition and Types of Yoga
- History and Development of Yoga in India
- Concept of Yoga in Modern World
- Effect of Yogic Exercise, Asanas, Kiryas and Pranayam on following Diseases:
Asthma, Jaundice & Blood Pressure

UNIT-II

- Rules & Principles of Yoga
- Personal & Social Rules of Yoga (Yam & Niyam) Yogic Diet.
- Effect of Yogic Exercise, Asanas, Kiryas and Pranayam on the following :
Diabetes, Low Back Pain, Arthritis, and Stress.

UNIT-III

- Astang Yog: Types and Steps
- Eight Paths of Yoga,
 - (i) Yam (ii) Niyam (iii) Asans (iv) Pranayam (v) Partihar (vi) Dhyam (vii) Dharma (viii) Samadhi (Internal & External System of Yoga and their Effect)

UNIT-IV Internal & External Purification- Yogic Methods

- Sat Karmas/Yogic Methods of Personal Hygiene/Six Methods of Purification or Cleaning Process and their Effects.
 - (a) Neti: Sutra Neti, Jal Neti, Dugad Neti, Ghee Neti, Rubber Neti.
 - (b) Dhosi: Jal Dhosi, Vastra Dhosi, Dand Dhosi, Kunnjal and Gajkarni
 - (c) Basti: Susak Basti, Jal Basti
 - (d) Nauli: Dakshin Nauli, Paschim Nauli, Madhya Nauli
 - (e) Kapal Bhati
 - (f) Taratak

References

1. Asana and Pranayam by Swami Kuvlayanand

2. Yoga for Health Happiness and peace by Yoga Acharya Prakash Dev.
3. Yoga Method of Re-integration by Alain Dawal
4. Yoga Personal hygiene by Shri Yogendra.
5. Yoga for everyman by demands Dubey.
6. Message and Medical Gymnastics by Marg vilace.
7. Water curve by Kellage
8. Message and remedials Gymnastics by trely.
9. Yog Shiksha/Yog Education by Dr. S.K. Mangal, Dr. Uma Mangal and SK Mana.

(Optional-b) Yoga -Practical

Max. Marks: 40
Time: 3 hours

Prayer:-

Asana

1. Sukh Asana (2) Padam Asana (3) Sudh Asana (4) Vajar Asana (5) Paschm Utam Asana (6) Aurdhmatsender Asana (7) Dhnur Asana(8) Bale Asana (9) Sarvang Asana(10) Chakar Asana(11) Bhujang Asana(12) Hanuman Asana (13) Suphad Vajarashan (14) Sirsh Asana (15) Sulabh Asana (16) Makar Asana (17) Shav Asana (18) Ustra Asana(19) Tarh Asana (20) Tikon Asana

Relaxation Technique/Yog Nidra Pranayama :

Any Five Pranayama

Any two Satkaram/Kirya

Any two Bandhas

M.P.E. (Semester-2nd)

Paper-VII Professional Preparation and Curriculum Design in Physical Education and Sports Sc. – (Part-II)

Max. Marks: 100

External Marks: 80

Internal Marks: 20

Time: 3 hours

NOTE:-

(a) For Paper Setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 16 marks. It will comprise of 8 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer type questions will carry 16 marks each.

(b) For Candidates

1. Attempt five questions in all, selecting atleast one questions from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Course Contents

UNIT-I

- Graduate Level Professional Preparation, Purposes, Admission Area, Curriculum, Field Experience, Teaching Practice, Facilities and Special Resources for Library, Laboratory and Research.
- Post-graduate Professional Preparation, Purposes, Admission, Professional Avenues, Area of Specialization and Research Requirements.
- The Specialization Professional Qualifications of Teaching Staff at Post-graduate Level.

UNIT-II

- In-Service Professional Preparation Programmes in Physical Education Concept: Meaning, Importance Process and its Applications.
- Professional Courses, Advancement Schemes of UGC and Professional Programmes,
- Role of Government and Institutes for Professional Preparation of in –Service
- Training Programmes in Physical Education & Sports Coaching.

UNIT-III

- In-Service Education of Professional Personnel Nature & Scope of Responsibility for in - Service Training Programme.
- Concept of Evaluation in Professional Preparation Programmes: Meaning, Importance, Process and its Applications.

UNIT-IV

- Concept of Curriculum Design and Development: Meaning, Need and Basic Principles.
- Factors Influences the Physical Education Curriculum Design.
- Conceptual Understanding of Physical Education Curriculum & Design.
- Historical Review of Professional Preparation in India, Japan & China.
- Concept of Curriculum Contents in Physical Education.
- Professional Preparation Curricular Programme.

Suggested Readings

1. Gupta Rakesh, Akhilesh, Santosh, Professional Preparation & Curriculum Design in Phy. Education.
2. Bhatia, K.K. and Narang, Principles of Education (Methods and Technique) Ludhiana Prakash Brothers Educational Publishers, 1991.
3. Bhatia, K.K.Kadian, KS Chanda, PC and Sharma (1990) Contemporary Problem of Indian Education, Jalandhar Prakash Brother Educational Publishers.
4. Graily, J.Byrant (1990) Career Potentials in Physical Activity New Jery, Prentice Hall in Englowood Cliffs USA.

M.P.E. 2nd Semester
Paper-VIII Biomechanics in Physical Education & Sports

Marks: 100
External Marks: 80
Internal Marks: 20
Time: 3 hours

NOTE:-

(a) For Paper Setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 16 marks. It will comprise of 8 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer type questions will carry 16 marks each.

(b) For Candidates

1. Attempt five questions in all, selecting atleast one question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Course Contents

UNIT-I Introduction to Bio-mechanics

- Meaning and Concept of Biomechanics
- Importance of Biomechanics in Phy. Education & Sports.
- Approaches for Studying Movement.

Mechanical Concepts

- Concept of Motion & Its types
- Distance and Displacement, Speed, Velocity and Uniform Acceleration, Force and Momentum, Pressure, Mass and Weight, Gravity and Centre of Gravity, Work, Power, Energy.

UNIT-II Body Balance and Stability Control

- Balance, Equilibrium and stability
- Controlling Balance in Static Positions
- Controlling Balance during Movements.
- Structural of Motor Action and Bio-mechanical Principles:
- Spin & its types
- Effect of Spin on speed of the ball on the surface
- Effect of Spin on speed of the ball in flight
- Magnus effect : its application in sports

UNIT-III Newton's Law of Motion

- Law of Inertia – (Linear motion)
- Law of Moment of Inertia (Angular Motion)
- Law of Momentum (Linear Motion)
- Law of Angular Momentum (Angular Motion)
- Law of Action and Reaction (Linear Motion)
- Law of Action and Reaction (Angular Motion)
- **Aerodynamic drag forces**
- Skin Friction
- Profile Drag
- Effect of Stream line on drag
- Terminal Velocity

UNIT-IV Forces and Movements

- Forces Action on a System

- Reaction Forces
- Friction Forces
- Centripetal and Centrifugal Forces
- Elastic Force
- Internal & External Forces
- Lever, Types of Lever and their Mechanical Advantage and Disadvantage with Special Reference to Physical Education and Sports
- Projectile of Motion:-Projecting for Horizontal and Vertical Distance

Suggested Readings

1. Gowitzke, BA and Milner M. 1998, Scientific Basis of human movement (3rd Edition)
2. Hay, J (1978) The Bio-Mechanics of Sports Techniques 2nd Edition Englewood Cliffs: Prentice Hall
3. Kreighbaum & Bartheles, Biomechnis, Ny: Macmillan 1985.
4. Mood S.D. Beyond Biomechanics-New York – Taylor (1996)
5. Hall, S.J. Basic Biomechanics, London, Mosy 1991
6. Hay, J & Reid (1982) The Anatomical and Mechanical Basis of Human Motion.

M.P.E. (Semester –2nd)
Paper-IX Anatomy & Physiology (Part II)

Max. Marks: 100

External Marks: 80

Internal Marks: 20

Time: 3 hours

NOTE:-

(a) For Paper Setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 16 marks. It will comprise of 8 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer type questions will carry 16 marks each.

(b) For Candidates

1. Attempt five questions in all, selecting atleast one question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Course Contents

UNIT-I

Skeletal System

- Anatomy of Bone and Cartilage
- Kind and Functions of Bones
- Name and Location of the Bones of Human Body
- Types of Joints
- Description of Diarthrodial-Joints
- Difference in Male and Female Skeleton with Special Reference to Functional Ability in Sports.

UNIT-II

Digestive System

- Brief Description, Location and Functions of the Mouth, Teeth Tongue, Salivary Glands, Stomach Intestine
- Structure & Functions of Elementary Canal
- Mechanism of Digestion and Absorption of Food.
- Effect of Exercise on Excretory System.

UNIT-III

Nervous System

- The Neuron and the Motor Unit
- The Motor and Sensory Impulses
- Neuro-Transmission and Movement Mechanism
- Locations, Anatomy and Functions of the Brain.
- Spinal Cord and its Functions
- Concepts of Receptors
- Reflex Action
- Effect of Exercise on Nervous System

UNIT-IV

Endocrine Glands

- Meaning of Endocrine Glands
- The Location and Functions of the following Endocrine Glands
- Pituitary Glands, Thyroid and Parathyroid Glands:
- Adrenal Glands
- Effect of Exercise on Endocrine Glands

Suggested Readings

1. Pearee Evelyn, C. (1962) Anatomy and Physiology for Nurses London, Faber and Faber Ltd.
2. Pavat, J. (1952) 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. Best and Taylor, (1960) The living Body, New Delhi, Asian Club House
6. Smount, C.F.V and Medonald, RJS: (1969) Physiotherapy, Occupational therapy and Gymnastics, Edward Arnold Pvt. Ltd.
7. Kiober Grey Anatomy and Physiology

**M.P.E. (Semester-2nd)
Paper-X- Sports Management**

**Max. Marks: 100
External Marks: 80
Internal Marks: 20
Time: 3 hours**

NOTE:-

(a) For Paper Setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 16 marks. It will comprise of 8 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer type questions will carry 16 marks each.

(b) For Candidates

1. Attempt five questions in all, selecting atleast one question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Course Contents

UNIT-I

- Concept of Sports Management: Meaning, Definition and Importance
- Nature and Scope of Sports Management
- Aims and Objectives of Sports Management
- Guiding Principles of Sports Management
- Types of Management in Sports

UNIT-II

- Role of Manager in Physical Education and Sports
- Skills of Management :Technical Skill, Human Skills, Conceptual Skills, Personal Skill
- Qualities and Qualifications of Manager in Physical Education & Sports.
- Layout of Play Field and Out Door Sports Area, Care and Maintenance of Play Field.
- Need, Importance and Types of Sports Equipment
- Disposal of Sports Equipment

UNIT-III

- Concept of Supervision: Meaning, Need and Guiding Principles
- Qualities of a Good Supervisor
- Techniques of Supervision
- Aims and Objectives of Supervision
- Types of Facilities and their Maintenance

UNIT-IV

- Concept of Planning: Meaning, Definition, Need & Importance
- Principles of Planning Facility
- Steps Involved in Planning Process
- Role of Planning for Betterment in Physical Education & Sports
- Records & Registers: Meaning, Types, Importance and Maintenance
- Role of Physical Education Teacher in Maintaining Records and Register.

References

1. Kannp Clydo & E: Teaching Methods for Physical Education MC Graw Hill Book Co. Inc.
2. Tirunurayana, C&S Hariharjan: Method in Physical Education (South India Press Karalkudi India).
3. Kamlesh M.L. & Sangra, M.S. (1982): Methods in Physical Education Praksh Brothers, Jullundur.
4. Two experienced Professors: (1982) Organization and Administration and Recreation in Physical Education, Prakash Brothers, Jullundur.
5. Wakharkar D.C. (1967) Manual of Physical Education, Pearl Publications, Bombay,

M.P.E. (Semester-2nd)
Paper-XI- Techniques of Officiating & Coaching (Part-II)

Max. Marks: =100
External Marks: 80
Internal Marks: 20
Time: 3 hours

(a) For Paper Setter

1. Paper setter will set 9 questions in all, out of which students will be required to attempt 5 questions.
2. Question No. 1 will be compulsory and will carry 16 marks. It will comprise of 8 short answer type questions of 2 marks each to be selected from the entire syllabus.
3. Two long answer type questions will be set from each of four units, out of which the students will be required to attempt one question from each unit. Long answer type questions will carry 16 marks each.

(b) For Candidates

1. Attempt five questions in all, selecting atleast one question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

Course Contents

UNIT-I

- Concept of Coaching: Meaning , Nature & Scope
- Basic Coaching Principles in Games & Sports
- Qualities of a Good Coach
- Responsibility of a Coach
- Role of following in Sports Performance
- a) Physical Fitness (b) Skill Ability (c) Psychological Fitness (d) Skill Execution Ability
- Measures for Improving the Standard of Officials

UNIT-II

- Marking, Measurements, , Equipments, Basic Fundamentals, Glossary, Rules & Regulations of following Games
- i) Hockey (ii) Handball (iii) Volleyball (iv) Kho-Kho (v) Wrestling
- Preparation of Score Sheet for Hockey, Handball, Volleyball, Kho-Kho and Wrestling
- Outstanding Achievers, Trophies and Award Related with Hockey, Handball, Volleyball, Kho-Kho and Wrestling.

UNIT-III

- Marking, Measurement, Equipments, Techniques, Glossary, Outstanding Achievers and Rules & Regulations of following Athletic Events:
- i) Combined Events (ii) Road/Races
- General Principles for Marking the Route for Road Races
- Preparation of Score-Sheet for Combined Events & Road-Races.

UNIT-IV

Nutrition for Sports Person

- Requirement of Calories and its Sources for the Sports Persons.
- General Guidelines for the Diet of a Sports Person
- Pre-during and Post Competition Food Stuffs for Sports Persons
- Balanced Diet
- Contribution of Nutrition to Sports Performance
- General Guidelines for Preparing Training Session
- Factors Affecting Sports Persons

Suggested Readings

R.L. Anand:	Playing field manual
John W.Bunn:	Principles of Coaching
HC Buck:	Rules of Games & Sports
AS Barha:	Science of Coaching

