

KINESIOLOGY AND BIO-MECHANICS IN PHYSICAL EDUCATION**UNIT-I**

Meaning, aim & objectives, importance of kinesiology for physical education and sports

Fundamental concepts: Centre of gravity, line of gravity, axes and planes of motion, fundamental starting positions, terminology of fundamental movements, and classification of muscles

UNIT-II

Location & Action of Muscles at Various Joints:-

- a) Upper extremity – shoulder girdle, shoulder joints, elbow joint
- b) Neck, trunk (Lumbosacral region)
- c) Lower extremity – Hip joint, knee joint, ankle joint

Muscular analysis of fundamental movements:- Walking, running, jumping, throwing, catching, pulling, pushing, striking, hanging

UNIT-III

Structure of Motor Actions: - Structure of cyclic and acyclic motor action and movement combination, functional relationship of different phases of motor action.

Qualities & Physiological Principles Of Movements:- Movement rhythm, movement coupling movement flow, movement precision and movement amplitude.

UNIT-IV

Meaning, aims, objectives and importance, types of motion, linear motion & angular motion

Linear kinematics: Speed, velocity acceleration uniform accelerated motion and projectile motion

Angular kinematics: Angular speed, angular velocity, angular acceleration and relationship between linear and angular motion

UNIT-V

Linear kinetics: mass, weight, force, pressure work, power energy, impulse, moments, impact, friction, and Newton's laws of motion angular kinetics: moment of inertia, conservation of moments, transfer of moments, levers, equilibrium

Biomechanical principles: Principles of initial force, principles of optimum path of acceleration, principles of conservation of moment and principles of counter action.

Note: Question Paper will be divided into two parts A and B. The Examiner is required to set 5 questions for Part-A and 5 questions for Part-B taking one question for each part from each of the five units of the syllabus. The questions of Part-A shall carry 5 marks each and questions for Part-B shall carry 10 marks each. The student is required to attempt any 4 questions from Part-A and any 3 questions from Part-B.

Practical

1. Demonstration of planes & axes of a given movement
 - i) Determination of the location of muscles at various joints
 - ii) Shoulder girdle, Shoulder joints, Elbow joint
 - iii) Hip joint, Knee joint, Ankle joint
2. Muscular analysis of the techniques of game of your specialization
3. Determination of centre of gravity of a Bat/Racket (Suspension method)
4. Evaluation of a Dynamogram to draw a velocity time curve, distance time curve.

SUGGESTED READINGS

- Bartlett, R. (2007). Introduction to Sports Biomechanics. Routledge Publishers, USA.
- Blazevich, A. (2007). Sports Biomechanics. A & C Black Publishers, USA.
- Breer & Zarnicks (1979). Efficiency of human movement. WIB Saunders Co. USA.
- Hamill, J. and Knutzen, K.M. (2003). Biomechanical Basis of Human Movement. Lippincott Williams and Wilkins, USA.
- Hay (1993). The biomechanics of sports techniques prentice hall inc New Jersey.
- McGinnis, P. (2004). Biomechanics of Sports & Exercise. Human Kinetics, USA.
- Oatis, C.A. (2008). Kinesiology. 2nd Ed. Lippincott, Williams & Wilkins, USA.

Semester VI

SPORTS MANAGEMENT

Max. Marks =75

Time allowed: 3Hrs

UNIT-I

Meaning and definition of sports management, Historical perspective of sports management in India, Nature and scope of sports management, Aims and objectives of sports management

UNIT-II

Guiding principles of sports management, Leaderships, Identification of resources, Planning, Organization and Administration.

UNIT-III

Significance of sports management in present day world, International perspectives in sports management- China and India, Sports medicine, Sports coaches

UNIT-IV

Definition and meaning of planning , Need and importance of planning, Principal of planning, Steps involved in planning process. Techniques of supervision in sports management.

UNIT-V

Job specification of manager, physical educational professional, Career avenues and professional preparation, Doping , Press and electronic media

Note: Question Paper will be divided into two parts A and B. The Examiner is required to set 5 questions for Part-A and 5 questions for Part-B taking one question for each part from each of the five units of the syllabus. The questions of Part-A shall carry 5 marks each and questions for Part-B shall carry 20 marks each. The student is required to attempt any 3 questions from Part-A and any 3 questions from Part-B.

SUGGESTED READINGS

- Ammon R., Southall RM and Blair DA (2003). Sport Facility Management. Fitness Information Technology Publishers. West Virginia. USA.
- Bucher C Administration Physical Education & Athletic Programme. McGraw Hill. New York. USA.
- Chakraborty S (1998). Sports Management. Sports Publications. Delhi.
- Gupta R. (2008). Techniques of Supervision. Friends Publication. India. New Delhi
- Kamlesh ML (2000). Management Concept in Physical Education and Sport. Metropolitan Book Co. Pvt. Ltd. New Delhi.
- Krotee, M. and Bucher, C. (2006). Management of Physical Education and Sports. McGraw Hill, USA
- Masteralexis LP, Barr C and Hums M (2008). Principles and Practice of Sports Management. Jones and Bartlett Publishers. USA.
- Parks, J., Quarterman, J. and Thibault, L. (2006). Contemporary Sports Management. Human Kinetics, USA.
- Roy SS (1995). Sports Management Delhi. Friends Publications.
- Sivia GS (1991). Sports Management in Universities. A.I.U. Deen Dayal Upadhyaya Marg. New Delhi.

TRACK & FIELD**Unit-I**

Introduction of track & field and historical review with special reference to India
 Training Methods- weight training, circuit training, cross-country, sand running
 Calculations of straggers, straight and radius of tracks

Unit-II

Broad Jump- Measuring of run way and fixing of check marks, various techniques used in broad jump
 Sprinting- fixing of the starting blocks, various finishing techniques used in sprints
 Aerodynamic- Principles involved in discus throw and javelin throw

Unit-III

Relays- hold of the batton, various types of botton exchange (visual and non-visual), positioning the in-coming runner and cynchronising he speed of in-coming runner
 Various techniques of stages of triple jump to be taught to novies and their explanation
 Relays
 Style of batton exchange (Visual and non-visual)
 Fixing Up runners for different relay races

Unit-IV

Tripple Jump
 Approach run, take off and landing for hop, step and jump, flying phase, landing
 Discus throw
 Hand hold, initial stance, preliminary swings, turn, delivery stance, delivery action, reverse action

Unit-V

Long distance running
 Correct running style emphasizing on proper body position and foot placement, proper arm and leg action, running tactics

Note: Question Paper will be divided into two parts A and B. The Examiner is required to set 5 questions for Part-A and 5 questions for Part-B taking one question for each part from each of the five units of the syllabus. The questions of Part-A shall carry 5 marks each and questions for Part-B shall carry 10 marks each. The student is required to attempt any 4 questions from Part-A and any 3 questions from Part-B.

Practical

1. Learn to mark the athletics track for 50m, 100m, 200m, 400m run
2. Learn to prepare a 200m athletic track
3. Learn to mark broad jump field
4. Learn to mark triple jump field

SUGGESTED READINGS

- Broadbent S (2007). A Boy's Guide to Track & Field. Vintage Books. Vancouver. Canada.
- Dybon Geoffrey (1962). The Mechanics of Athletics. University of London Press Ltd. London.
- Ken O Bosen. Track & Field for Beginner. Metropolitan Books. New Delhi.
- Malhotra AK. (1980). A Guide to be an Athletics. Krishna Pub. New Delhi
- Mohan. VM Athletics for Beginners. Metropolitan Book. Delhi
- Quercetani R (2000). Athletics: A History of Modern Track & Field. Sep Editrice Publishers. Milano. Itlay.

Semester VI
Paper- XXIV (b)

Paper-BPE 603 (b) (i to iv)

Max. Marks =25

Time allowed: 2Hrs

b) Game: Group-III

Common for all professional games (Football, Hockey, Table Tennis &Handball)

Unit-I

Introduction of the games , history of games/sports in India, in Asia, in World

Unit-II

Fundamentals or basic skills, organization of sports in India

Unit-III

Important tournaments, trophies, cups, resource material (Books/Literature)

Unit-IV

Rules and regulations, role of official, duty of official

Unit-V

Officiating, Methods of officiating
Field Marking and Dimension of the game

Note: Question Paper will be divided into two parts A and B. The Examiner is required to set 8 questions for Part-A and 5 questions for Part-B taking atleast one question for each part from each of the five units of the syllabus. The questions of Part-A shall carry 2 marks each and questions for Part-B shall carry 5 marks each. The student is required to attempt any 5questions from Part-A and any 3 questions from Part-B.

SUGGESTED READINGS

- American Football Coaches Association (2002). The Football Coaching Bible. 1st Ed., Human Kinetics, USA.
- Carling, C., Williams, M. and Reilling, T. (2006). Handbook of Soccer Match Analysis : A Systematic Approach to Improving Performance. Routledge Publishers, USA.
- Heaton, J. (2009). Table Tennis : Skills, Techniques, Tactics. Crowood Press, USA.
- International Hockey Federation (2003). Rules of the Game of Hockey with Guidance for Players and Umpires. International Hockey Federation. India.
- Jain D (2003). Hockey Skills & Rules. khel Sahitya Kendra . New Delhi.
- Jain D (2003). Play & Learn Handball. Khel Sahitya Kendra. New Delhi.
- Kleinman, I. (2009). Complete Physical Education Plans. 2nd Ed. Human Kinetics, USA.
- McAfee, R. (2009). Table Tennis : Steps to Success. Human Kinetics, USA.
- Pillisco, R.R. (2009). Superior Table Tennis : The Science and Art. Create Space Publishers, USA.

ENGLISH A & B

Syllabus from B.A. Programme of Delhi University

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