

Serial No. 3154(ii)

Roll No.....

**MASTER OF PHYSICAL EDUCATION  
(M.P.Ed.) SEMESTER-IV-2018**

**Paper: MPE-1004(ii): Subject Specialization  
Sports Biomechanics**

Time: 3 Hrs.

Maximum Marks: 50

(Write your Roll No. on the top right side immediately on receipt of this question paper)

Note: Attempt any FIVE questions. All question carry equal marks.

- Q.1. Write a note on Mechanical Energy, Work and Efficiency Emphasizing on: (2.5X4=10)
- (a) Definition and Standard Unit
  - (b) Limitations
  - (c) Purpose for Measuring
  - (d) Potential Uses for measurement of movement patterns.
- Q.2. Discuss on Cinematography and Computerized Video Analysis emphasizing on the following: 10
- 3-D Cinematography (Equipment Specifications, Calibration and Expected Reliability, other Consideration).
- Q.3. Explain Recommended procedure for Direct Measurement Techniques emphasizing on the following:- 10
- Acclerometry (Equipment Specifications, Calibration Procedures and Expected Reliability)
- Q.4. Explain Recommended procedures related to Force Transducers emphasizing on the following:- 10
- Pressure Platforms (Design, Basic Consideration in Design and Utilization, Procedures and Expected Reliability).
- Q.5. Write on the following with examples:- 10
- Body Segment and Total Body Energies and Mechanical Work and Output. (Equipment Specifications)
- Q.6. Give an introduction to isokinetic Measurement. 10
- Q.7. Give an introduction to Measurement and Applications in Gait Analysis. 10
- Q.8. Write an essay on Policy Statement regarding the use of human subject and informed consent. 10