

Serial No. 2053 (ii)

Roll No.: \_\_\_\_\_

**MASTER OF PHYSICAL EDUCATION  
(M.P.Ed.) SEMESTER - II, May - 2017  
Paper - MPE-0804 (ii) : SUBJECT SPECIALIZATION  
(SPORTS BIO-MECHANICS)**

Time: 03 Hours.

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 questions carry equal marks.**

1. Write on Kinanthropometric characteristics effecting the mechanics of human movement (taking one Game/Sport as example of your choice). (10)
2. Discuss on Application of Biomechanics to Neuromuscular fitness activities emphasizing on – (10)
  - a) Aspects of fitness
  - b) Resistance devices used in training
  - c) Strength
  - d) Muscular endurance
  - e) Muscular power and
  - f) Flexibility
3. Explain the concept related to Linear movement responses to Applied forces emphasizing on – (10)
  - a) Linear speed and velocity
  - b) Linear acceleration
  - c) The relationship of Force, Mass and Linear Acceleration
  - d) Centripetal Force and Radial Acceleration
4. Write a note on Angular momentum emphasizing on – (10)
  - a) Angular Momentum
  - b) Angular Impulse
  - c) Conservation of angular momentum within a system
  - d) Vector resolution of angular momentum.
5. Give an analysis of activities in which the body rotate free of support emphasizing on – (10)
  - a) The human body in rotator motion
  - b) Initialing rotations and
  - c) Analysis of rotations while airborne.
6. Give an analysis of activities in which the body rotates while supported. (10)
7. Define the following movement analysis:-
  - a) Kinesiological analysis
  - b) Mechanical Analysis
  - c) Biomechanical Analysis
  - d) Quantitative Analysis and
  - e) Qualitative Analysis
8. Analyse biomechanically a one technique from a Sport/Game of your choice. (10)