

Roll No.....

Name of the Course : Master of Physical Education (M.P.Ed.)
Name of the Paper : Subject Specialization: **Sports Biomechanics**
Paper Code : MPE 804 (ii)
Semester : II (May/June 2026)
Duration : 3 Hours
Maximum Marks : 50 Marks

Instructions for Candidates

1. Attempt any five questions
2. All questions carry equal marks (15)
 1. Discuss biomechanics as a discipline and its relation to other subjects. Explain the properties of the skeletal system.
 2. Explain the application of biomechanics in neuromuscular fitness activities. Discuss strength, endurance, power and flexibility.
 3. Define linear momentum and impulse. Explain the law of conservation of linear momentum with suitable sports examples.
 4. Explain the biomechanics of supported and unsupported rotational movements of the human body with examples.
 5. Give the biomechanical analysis of any one sport skill with phases of movement.
 6. Explain muscular fatigue and group action of muscles. Relate these concepts to movement efficiency and force production.
 7. Discuss torque, rotational inertia and angular acceleration. Explain their importance in sports performance.
 8. Analyze push-like movements in sports. Discuss force, power and accuracy components with suitable examples.