

**MASTER OF PHYSICAL EDUCATION
(M.P.Ed.) SEMESTER – III – 2021**

**Paper: MPE-0904(ii)
Sports Biomechanics (Specialization)**

Time: (3 hrs + 1 hr*)

Maximum Marks: 50

***For Downloading of QP, Scanning answer sheet and uploading it.**

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

Note: Attempt any FOUR questions. All questions carry equal marks.

Q.1 Give a detailed description of the human skeletal system, its articulations and state its properties.

Q.2 Write a note on the biomechanics of the musculoskeletal system emphasizing on the following:

- a. Level like arrangements
- b. wheel and axle like arrangements
- c. pulley like arrangements

Q.3 Write a note on biomechanical analysis of movements emphasizing on qualitative and quantitative analysis.

Q.4 Discuss the rotatory movement responses to applied forces with reference to the following:

- a) angular speed and velocity
- b) angular acceleration
- c) The relationship of torque, rotational inertia and angular acceleration.

Q.5 Write a detailed analysis of activity in which the body rotates free of support emphasizing on the human body in rotatory motion, initiating rotations, and analysis of rotations while airborne.

Q.6 Discuss on performance analysis of push like movements emphasizing on force activities, power activities and accuracy activities.