

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

**Paper: MPE-0902
Fundamental of Biomechanics**

Time: (3 hrs + 1 hr*)

Maximum Marks: 50

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

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

Q.1 Give an introduction to the biomechanics instrumentations emphasizing on clocks and timers, stroboscope, and cinematography and computer assisted analysis.

Q.2 Define the following concepts.

- a) Types of motion
- b) Distance and displacement
- c) Speed, velocity and uniform acceleration

Q.3 Discuss on torque and moment of inertia with reference to the following:

- a) The effect of two or more torques on a system
- b) Vector composition of torque
- c) Torque and the body's center of gravity location.

Q.4 Describe Newton's laws of motion with suitable examples.

Q.5 Write a note on observing and analyzing performance with reference to the following:

- a) The nature of skills
- b) overall performance objective of skill
- c) The analysis process

Q.6 Write in detail about the various biomechanical principles.