M.P.Ed. Examination, 2019
Semester-II
Physical Education
Course : MPCC-202
(Sports Biomechanics and Kinesiology)

Time : 3 Hours **Full Marks : 70**

Questions are of value as indicated in the margin
Answer **one** question from each unit.

UNIT - I

1. What do you mean by 'Applied Kinesiology' and 'Sports Biomechanics'? Explain the scope of Biomechanics in sports. 2+2+10=14

Or

Write the meaning of the terms 'Statics and Dynamics'. Define Axes and Planes and illustrate them with the help of motor activities. 2+4+8=14

UNIT – II

2. Write the names of any five major muscles located in the upper part of your body with their origin insertion and actions. 14

Or

List any five major muscles located in the lower part of your body with their origin, insertion and actions. 14

UNIT – III

3. Explain Newton's Laws of motion in relation to their applicability in sports activities. 14

Or

Define linear motion and angular motion. Establish the relationship between linear and angular velocity. Write the units of measuring angular displacement of an object Establish the relationship between Radian and Degree. 4+4+2+4=14

UNIT – IV

4. Write down the types of projectile in sports. How the 'Range' and 'Time of Flight' of a Projectile are calculated when release height and landing height are the same. 2+6+6=14

Or

Write a detail note on 'Aerodynamics' of Discuss throw. 14

UNIT - V

5. What do you understand by qualitative Biomechanical Analysis. Describe the steps to make a qualitative biomechanical analysis. 4+10=14

Or

What is quantitative 'Biomechanical Analysis'? Name the biomechanical tools that are utilized for quantitative biomechanical analysis. Describe the steps to be adopted to make a quantitative biomechanical analysis of a sports skill. 4+2+8=14
