2016
2ⁿᵈ Semester Examination
Sports Biomechanics and Kinesiology
MPCC – 202

Full Marks 70   **Time: 3 Hours**

The figures in the margin indicate full Marks. Candidates are required to give their answers in their own words as far as practicable. Illustrate the answers wherever necessary.

Answer all Questions

1. What is Kinesiology? Explain the nature and scope of Kinesiology   2+10+3 = 15
   in sports and physical education. Define Plane and Axis.

OR

What is Biomechanics? Write down the history of Biomechanics.   2+6+7 = 15
Explain why the knowledge of Biomechanics in essential for Coaches and
Physical Education Teachers.

2. Write down the origin, insertion and functions of the following muscles: $7^1/_2 + 7^1/_2 = 15$

Biceps and Triceps

OR

Hamstring and Gastrocnemius

3. What is motion? Explain different types of motion with example. Explain   4+4+7 = 15
   the application of Newton's Law of motion in sports.

OR

What is friction? Explain the role of friction in 50 Meter swimming.   2+7+6 = 15
Explain the role of centripetal force and centrifugal force in 400Meter Run.

4. What is lever and what is body lever? Explain different types of body lever   4+6+5 = 15
   with example. Explain aerodynamics.

OR

What is Projectile? Explain that the path of a projectile is a parabola.   2+6+2+5 = 15
What is stability? Explain the role of C. G. for stability and equilibrium.

5. Write short notes (any two):   5 X 2 = 10
   (a) Kinesiological Analysis of Movement
   (b) Cinematography
   (c) Qualitative & Quantitative method of analysis
   (d) Gait analysis