M. P. Ed 2ⁿᵈ Semester Examination 2017
Sports Biomechanics and Kinesiology
MPCC – 202

Full Marks – 70   Time – 3 Hours

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

Group – A
Answer any three questions

1. What is kinesiology and sports Biomechanics? Explain the scope of Biomechanics in the Physical education and sports. Explain the role of kinesiology in Physical Education.   4+7+4 = 15

2. What is stability? Equilibrium and centre of gravity. Explain the role of cg for maintaining stability and equilibrium. Define plane and axis.   6+5+4 = 15

3. Explain different actions of muscles. Explain the origin and insertion of Biceps and Hamstrings muscles.
                                                                                                                          5+10 = 15

4. What is lever? Expalin different types of body lever with example. Explain the application of law of acceleration in Physical Education and Sports.   2+9+4 = 15

5. What is projectile ? What are the factors influencing projectile motion. Explain the equation and principles of projectile motion?   2+4+9 = 15

Group – B
Write notes on any two of the following

6. a) Cinematography   2 X 7¹/₂ = 15
   b) Qualitative and quantitative analysis
   c) Analysis of the fundamental movements of walking
   d) Analysis of running broad jump

Group – C
Answer any ten questions of the following
7. Choose the correct Answer   1 X 10 = 10
   a) Largest bone in the human body is (1). Humerus (2). Fibula (3. Tibia (4). Femur
   b) The sternum is located in (1). Plain   (2). Skull   (3). Foot (4). Chest
   c) On ' Set' command the sprinter is in 1. Neutral equilibrium 2. Stable equilibrium 3. Unstable Equilibrium 4. None of the above
   d) Total number of bones in the skull are 1). 8 2). 10 3). 14 4). 6
   e) Carpo metacarpal joint is an example of 1. Gliding joint 2. Condyloid joint 3. Ball and socket joint 4. Saddle joint
   f) The branch of mechanics that describes the causes of force is 1.3 Kinesilogy 2. Biomechanics 3. Kinetics 4. Kinematics
   g) Mechanics is the branch of physics that deals with bodies 1. In m,otion 2. At rest 3. Both 4. 1&2
   h) Imaginary line passing laterally from ne side to another is called 1. Vertical axis 2. Lateral axis 3. Sagital axis 4. Sagital plane
   i)Newton's second law of motion is also known as 1. Law of momentum 2. Law of gravitation 3. Law of inertia 4. Law of action reaction
   j) Third class leaver is al;so known as 1. Speed leaver 2. Force leaver 3. Both Speed & Force leaver 4. Nopne of the above
   k) Latissimus dorsi is situated in 1. Upper arm 2. Lower arm 3. Thigh 4. Back
   l) An athlete covering 100 m distance in 10 second run at a speed of 1. 100m/s 2. 1000m/s 3. 10m/s 4.1000m/s