

C 82633

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Name.....

Reg. No.....10.....

**SECOND YEAR B.P.E. DEGREE EXAMINATION, APRIL 2015**

**Paper VI—KINESIOLOGY AND BIOMECHANICS**

(2010 Admissions)

Time : Three Hours

Maximum : 75 Marks

Answer **three** questions from Part A and **two** questions from Part B including **question No. 8**, which is **compulsory**.

**Part A**

1. Describe the structure of hip joint. Write the attachments and actions of the muscles acting on it.  
(15 marks)

2. Explain briefly :

- (a) Contribution of Alfonso Boreli.
- (b) The role of Kinesiology in Physical Education.
- (c) The structural classification of muscles.

(3 × 5 = 15 marks)

3. Describe the following :—

- (a) The general principles in giving impetus to external objects.
- (b) The meaning of Biomechanics.
- (c) Buoyancy and equilibrium in water.

(3 × 5 = 15 marks)

4. Write short notes on the major actions of the following muscles :—

- (a) Rhomboid.
- (b) Triceps.
- (c) Hamstrings.

(3 × 5 = 15 marks)

5. Explain briefly :

- (a) The mechanical analysis of walking.
- (b) The factors influencing equilibrium.
- (c) Centripetal and centrifugal force.

(3 × 5 = 15 marks)

**Turn over**

**Part B**

6. Describe the mechanical and muscular analysis of sprinting. (15 marks)

7. Explain briefly :

- (a) The function of the proprioceptors.
- (b) The anatomic starting position.
- (c) The pronation of the elbow joint.

(3 × 5 = 15 marks)

8. Write short notes on any *five* :

- (a) Neutralizers.
- (b) Goniometry.
- (c) Sagittal plane.
- (d) Frontal Axis.
- (e) All and none law.
- (f) Ankle Joint.
- (g) Supination.
- (h) Cerebrum.

(5 × 3 = 15 marks)