

C 45603

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Name.....

Reg. No.....

**SECOND YEAR B.P.E. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, SEPTEMBER/OCTOBER 2013**

KINESIOLOGY AND BIOMECHANICS

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 Ankle Joint. Write the attachments and actions of the muscles acting on it. (15 marks)
2. Explain briefly :
 - (a) Contribution of Duchene.
 - (b) Roles of muscles.
 - (c) Brief explanation of the function of stretch reflex. (3 × 5 = 15 marks)
3. Describe the following :—
 - (a) The general principles in receiving impetus from external objects.
 - (b) The meaning and concept of CG.
 - (c) The description of good posture and factors contributing to good posture. (3 × 5 = 15 marks)
4. Write short notes on the major actions of the following muscles :—
 - (a) Triceps.
 - (b) Sartorius.
 - (c) Quadriiceps. (3 × 5 = 15 marks)
5. Explain briefly :
 - (a) The flexion of the knee joint.
 - (b) The mechanical analysis of striking.
 - (c) The fundamental starting position. (3 × 5 = 15 marks)

Turn over

Part B

6. Describe the mechanical and muscular analysis of jumping. (15 marks)
7. Explain briefly :
- (a) General principles of force application.
 - (b) The function of stretch reflex.
 - (c) Exercises for strengthening muscles.
- (3 × 5 = 15 marks)
8. Write short notes on any five :
- (a) Synergists.
 - (b) Isotonic Exercises.
 - (c) Median plane of an extremity.
 - (d) Vertical Axis.
 - (e) Buoyancy.
 - (f) Wrist Joint.
 - (g) Cerebellum.
 - (h) Computerized 3D motion analysis system.
- (5 × 3 = 15 marks)