



Mallikarjuna

**Avinashilingam Institute for Home Science and Higher Education for Women**  
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD)  
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B  
Coimbatore - 641 043, Tamil Nadu, India

**Continuous Internal Assessment Test II – April 2023**  
**IV SEMESTER**

**Class : II B.P.Ed**  
**Major : Physical Education**

**Time: 2 hours**  
**Maximum Marks: 60**

**21BPDC25 Kinesiology and Biomechanics**

**Course Outcomes:**

At the end of the course, students will:

1. Identify biomechanical, health, physiological and psychological limitations to and interventions for improving physical performance
2. Analyze and explain the mechanisms underlying biomechanical, physiological and psychological changes that occur during after acute and chronic exercise.
3. Develop physical conditioning programs based on scientific principles designed to develop physical fitness and improve athletic performance.
4. Understand mechanical principles can be applied to the analysis of human movement to assess and improve performance and reduce the risk of injury.
5. Know effectiveness of human movement using mechanical principles.

**Part-A**

**6x1=6**

**Choose the correct answer**

- |  |       |
|--|-------|
| 1. The path of an object projected into free air space is known as                                   | CO1K3 |
| a. Speed                      b. Abnormal curve              c. Velocity              d. Parabola    |       |
| 2. Boxers muscles are  | CO2K2 |
| a. Trapezius              b. Sterno cliedo mastoid              c. Abdominal              d. Deltoid |       |
| 3. Which type of lever is most effective in sports movements   | CO2K1 |
| a. Third class              b. Second class              c. First class              d. Fourth class |       |
| 4. A forward upward movement of the foot at the ankle joint is                                       | CO2K2 |
| a. Planter flexion              b. Dorsi flexion              c. Inversion              d. Eversion  |       |
| 5. Which of Newton's law of motion deals with acceleration   | CO2K3 |
| a. First              b. second              c. Third              d. Fourth                         |       |
| 6. Sports biomechanics can be described as   | CO2K2 |
| a. Mechanics of sports      b. Kinesiology      c. Physics of sports      d. Sports dynamics         |       |

**Part- B**

**3x6=18**

**Answer ALL Questions**

**Each answer should not exceed 400 words or two pages**

- |  |       |
|--|-------|
| 7.a. Define force and explain its types                        | CO1K2 |
| (or)   |       |
| 7. b. Write about levers and explain its types                 | CO1K3 |
| 8.a. Briefly explain about the factors influencing projectiles | CO2K2 |
| (or)   |       |
| 8.b. Describe the Newton's law of Motion                       | CO2K3 |
| 9.a .Elaborate the Reciprocal Innervation                      | CO1K2 |
| (or)   |       |
| 9.b. Write about angular kinetics                              | CO2K3 |

**Part-C**

**3x12=36**

**Answer ALL questions**

**Each answer should not exceed 800 words or four pages**

- |  |       |
|--|-------|
| 10.a. Explain about the linear kinematics  | CO2K1 |
| (or)   |       |
| 10. b. Elaborate the mechanical principles involved in any two throwing events     | CO2K3 |
| 11 a. Write about linear kinetics  | CO2K1 |
| (or)   |       |
| 11. b. Describe the mechanical principles involved in Basket ball                  | CO2K3 |
| 12.a. Elaborate the Angular Kinematics   | CO2K4 |
| (or)   |       |
| 12b Explain the mechanical principles involved in anyone game/event of your choice | CO2K1 |

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