



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 I – February 2024**  
**VI SEMESTER**

**Class : III B.Sc**  
**Major : Physical Education**

**Time : 2 hours**  
**Max. Marks: 60**

**21BPEC26 Kinesiology and Biomechanics**

**Course Outcomes:**

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 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 risk of injury.
5. Know effectiveness of human movement using mechanical principles.

**Part-A**

**6 x 1 = 6**

**Choose the correct answer**

1. Examples of Synarthroses joints are all of the following examples EXCEPT CO1K3
  - a. Symphysis Pubis
  - b. Suture joints of the skull
  - c. Joints between the bodies of the vertebrae
  - d. Metacarpal phalangeal joint
2. Plane joints and Ball & Socket joints are considered to be: CO2K1
  - a. Uniaxial Joints
  - b. Biaxial Joints
  - c. Triaxial Joints
  - d. Pivot Joints
3. The type of contraction of the biceps muscles in the arms while raising the body to do a chin-up is: CO2K4
  - a. Concentric
  - b. Eccentric
  - c. Isometric
  - d. Isokinetic
4. Which biological principle is based on the Newton's Third law of motion? CO4K3
  - a. Linear Motion
  - b. Counter Action
  - c. Angular Motion
  - d. Maximum Effort
5. Extension and abduction come under \_\_\_\_\_ movement CO5K1
  - a. Circumduction
  - b. Gliding
  - c. Angular
  - d. Supination
6. \_\_\_\_\_ axis passes horizontally from posterior to anterior. CO3K4
  - a. Sagittal
  - b. Frontal
  - c. Vertical
  - d. None of these

**Part- B**

**3 x 6 = 18**

**Answer ALL Questions**

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

- 7.a. Brief the history of Kinesiology CO2K4  
(or)
- 7.b. What is the role of Kinesiology in Physical Education CO3K1
- 8.a. Locate the origin of Trapezius muscle CO4K3  
(or)
- 8.b. Draw the diagram of deltoid muscle CO2K4
- 9.a. Classify the types of bones CO4K2  
(or)
- 9.b. List any three short muscle and three large muscle in a human body CO4K2

**Part - C**

**3 x 12 = 36**

**Answer ALL questions**

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

10. a. Describe the classification of synovial joints and its movement CO3K1  
(or)
- 10.b. Draw the upper limbs and lower limbs and mention the names of the bones CO3K1
- 11.a. Explain the Origin, Insertion and action of Trapezius and Biceps muscles CO2K4  
(or)
- 11.b. Explain the Origin, Insertion and action of Pectoralis major muscle and Plantaris muscles CO4K5
- 12.a. Enumerate the muscular designing and kinesiological grouping CO3K2  
(or)
- 12.b. Explain Axis and Planes CO2K6

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**Staff in-charge: Dr. M.Mary Glory Ponrani**