



Maximum

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 2024

VI Semester

**Class : III BSc
Major : Physical Education**

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

21BPEC26 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 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. Division of joints allowing ample movement between 2 or more specific heads of bones are grouped as CO1K3
a) diarthrosis b) tendons and tibia c) synarthroses d) ligaments and femur
2. Division of joints fibrous in nature permitting no movement is CO2K1
a) tendons and tibia b) ligaments and femur c) diarthrosis d) synarthroses
3. What are the three categories of the muscles? CO2K4
a) Tendons, Ligaments, Joints b) Cardiac, Smooth, Skeletal
c) Flexion, Smooth, Extension d) Skeletal, Stringy, Smooth
4. How many muscles are there in the body of human? CO4K3
a) 340 b) 560 c) 640 d) 860
5. Which of the following is not a kind or type of muscle? CO5K1
a) Cardiac b) Skeletal c) Sesamoids d) Smooth
6. Which of the following is moving skull bone? CO3K4
a) Femur b) Mandible c) Atlas d) Tibia

Part B

3 x 6 = 18

Answer ALL Questions

Each answer should not exceed 400 words or two pages

- 7.a. What is the shortest muscle and longest muscle in our body and where it is located? CO2K4
(or)
- 7.b. Define Isometric contraction and give few examples CO3K1
- 8.a. Define Isokinetic contraction and give few examples CO4K3
(or)
- 8.b. Brief the Laws of motion CO2K4
- 9.a. Brief – Air Gravity and Water friction CO4K2
(or)
- 9.b. Define gait analysis and how its useful in sports and games field CO4K2

Part C

3 x 12 = 36

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 10.a. List the abdominal muscles and explain its origin, insertion and action CO3K1
(or)
- 10.b. Explain the muscular designing and kinesiological grouping CO3K1
- 11.a. Describe the types of Axis and Planes CO2K4
(or)
- 11.b. Elaborate the mechanical principles involved in sports and games CO4K5
- 12.a. Enumerate the types of Motion CO3K2
(or)
- 12.b. Explain the application and analysis of biomechanical principles in Walking, Running, Throwing, Jumping and Hitting. CO2K6
