

# Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)

Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B

Coimbatore - 641 043, Tamil Nadu, India

## Bachelor's Degree Examination – July 2020 VI Semester

Class : III UG  
Major : Physical Education

Time : 2 Hours  
Max. Marks : 50

### 15BPEC26 Kinesiology and Biomechanics

#### Part A

10 x 1 = 10

#### Choose the Correct Answer

- The study about fundamental movements of the body is called as
  - Biomechanics
  - Kinesiology
  - Physiology
  - Anatomy
- Elbow joint is the example for
  - hinge joint
  - ball and socket joint
  - saddle joint
  - glide joint
- Origin of the Triceps Brachi is
  - upper margin of glenoid fossa
  - infraglenoid tubercle
  - bicipital tuberosity of radius
  - musculocutaneous
- Nerve supply to the deltoid is
  - upper margin of glenoid fossa
  - thoracic nerve
  - axillary nerve
  - musculocutaneous nerve
- \_\_\_\_\_ is a straight line around which an object rotates.
  - Centre of gravity
  - Equilibrium
  - Axis
  - Planes
- Isokinetic contractions produce movements of a
  - constant speed
  - constant power
  - constant load
  - constant time
- An object moves from one place to another place is called as
  - force
  - motion
  - projectile
  - equilibrium
- \_\_\_\_\_ is a rigid bar, which can rotate about a fixed point when a force is applied to it to overcome a resistance.
  - Force
  - Projectile
  - Lever
  - Motion
- Newton's first law of motion is one of the examples from the following techniques
  - on your mark
  - set
  - acceleration
  - finish
- Kicking is the example for \_\_\_\_\_ type of lever.
  - first order
  - second order
  - third order
  - first and second order

**Part B**

**3 x 6 = 18**

Answer any **Three** questions

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

11. Write the role of Kinesiology in Physical Education.
12. Briefly write about history of Kinesiology.
13. Write the origin, insertion, nerve supply and action of Gastrocnemius with a neat diagram.
14. Write the origin, insertion, nerve supply and action of triceps with neat diagram.
15. Briefly Write about axes.
16. Write a short note about muscular designing.
17. Briefly write about types of motion.
18. Write a short notes on 'air gravity' and 'water friction'.
19. Write the application of biomechanical principles in basketball dribbling.
20. Write the application of biomechanical principles in hockey scooping.

**Part C**

**2 x 11 = 22**

Answer any **Two** questions

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

21. Explain the synovial joints with examples.
22. Discuss the importance of kinesiology in physical education.
23. Explain the origin, insertion, nerve supply and action of Hamstring muscles with a neat diagram.
24. Explain the origin, insertion, nerve supply and action of trapezius muscles with a neat diagram.
25. Explain the types of muscular contraction.
26. Discuss the various planes with sports examples.
27. Explain the laws of motion suitable sports examples.
28. Explain the types of lever with sports examples.
29. Analyse the Biomechanical principles application in various skills of Tennis.
30. Analyse the Biomechanical principles application in various skills of Volleyball.