



**Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University) Coimbatore – 641 043**

Bachelor of Physical Education Degree Examination – April 2019
IV Semester

Class : II B.P.Ed.

Time: 3 Hrs
Max. Marks: 100

15BPDC25 Kinesiology and Biomechanics

Part – A

10 X 1 = 10

Choose the correct answer

1. Gastronomies muscle is located in
 - a. lower arm
 - b. lower leg
 - c. upper leg
 - d. jumper arm
2. Function of long bones in the body is to
 - a. provide surface area for muscle attachment
 - b. act as lever
 - c. give protection
 - d. give strength
3. Who is called as father of Kinesiology ?
 - a. Sir Isaac Newton
 - b. Archimedes
 - c. Aristotle
 - d. Claudius Galen
4. Which joint is called as pivot joint ?
 - a. Meta Carpal Joint
 - b. Atlanto Axial Joint
 - c. Carpal Joint
 - d. Elbow Joint
5. Which muscle is involved in the elevation of arm ?
 - a. Quadriceps
 - b. Triceps
 - c. Biceps
 - d. Deltoid
6. Sagittal plane is otherwise called as
 - a. Anterior Posterior Plan
 - b. Transverse Plan
 - c. Lateral Plane
 - d. None of the above
7. Hinge Joint is called as
 - a. Shoulder Joint
 - b. Hip Joint
 - c. Elbow Joint
 - d. Angle Joint
8. In which type of lever, the weight is in between force and fulcrum ?
 - a. Type III
 - b. Type I
 - c. Type II
 - d. All the above
9. An object moving in a circular path
 - a. Rotatory motion
 - b. Rectilinear motion
 - c. Curvilinear motion
 - d. Random motion
10. Speed is
 - a. Displacement / Time
 - b. Time / Distance
 - c. Time / Displacement
 - d. Distance / Time

Part – B

5 X 6 = 30

Answer the following questions
Answer should not exceed 400 words or two pages

11. a. Briefly explain about the Newtons Law of motion.
11. b. Explain the different types of motion with reference to sports activities.
12. a. Briefly explain the linear kinetics. (or)
12. b. Explain the different types of levers in application to sports activities.
13. a. Describe the history of kinesiology. (or)
13. b. Write the classification of motion.
14. a. Write about the angular kinetics. (or)
14. b. Draw a neat diagram of origin and insertion of Biceps and Trapezes muscles.
15. a. Write the movement analysis of walking.
15. b. Give short notes on :
 - i. Rotation (or)
 - ii. Adduction

Part – C

5 X 12 = 60

Answer the following questions
Answer should not exceed 800 words or four pages

16. a. Explain about the basic mechanical concept in Biomechanics.
16. b. List down the role of kinesiology and Biomechanics in your game of specialization.
17. a. Write the types of muscular contraction. (or)
17. b. Explain the role of kinesiology of Biomechanics in physical education.
18. a. List down the corrective exercise for school children. (or)
18. b. Explain the stages of equilibrium.
19. a. Enumerate types of joints in human body. (or)
19. b. Write the types of levers with suitable mechanical and sports example.
20. a. Explain the structural classifications and functions of human joint. (or)
20. b. Write the origin, insertion, nerve supply and movement possible in the following muscles.
 - i. Hamstring
 - ii. Gastroninius
