19. Distinguish Angular Distance and Angular Acceleration with examples.

20. Explain the bio-mechanical analysis in running with suitable illustrations.

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S.No. 3912 **16 SCCPE 5**

(For candidates admitted from 2016–2021 Batch)

B.Sc. DEGREE EXAMINATION, NOVEMBER 2023.

Part III — Physical Education, Health Education and Sports — Major

KINESIOLOGY AND BIOMECHANICS

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20)

Answer ALL the questions.

1. Define the term Kinesiology.

2. What is biomechanics?

3. List down the Quadriceps group of muscle.

4. Which are the joints are called as Ball and Socket?

5. Define the term Velocity

6. What is linear Motion.

7. What is Angular Velocity?

8. Define the term Centre of Gravity.

9. Define the term Force.

10. What is Centripetal Force?

PART B — (5 × 5 = 25)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Briefly explain the need and importance of Kinesiology in the field of physical Education.

Or

(b) Briefly explain the scope and importance of biomechanics in the field of physical Education.

12. (a) Describe Ball and Socket joint and Pivot joint with example and diagram.

Or

(b) Draw a neat diagram of Deltoid muscle and describe n the origin, insertion and action of the muscle.

13. (a) Write short notes on the law of Inertia with example.

Or

(b) Write short notes on Linear and Angular motion.

14. (a) List down the advantage of levers in sports movement with example.

Or

(b) Describe the types of levers and its application in sports and games.

15. (a) Describe types of force and its application in sports and games.

Or

(b) Write short notes on bio mechanical analysis of walking.

PART C — (3 × 10 = 30)

Answer any THREE questions

16. Elaborately discuss about the historical development of Kinesiology.

17. Draw a neat diagram of Quadriceps group of muscle and explain the origin, insertion and action of muscle.

18. Enumerate Newton's law of motion with examples