



# Rajiv Gandhi University of Health Sciences, Karnataka

## I Year B.P.T. Degree Examination - 10-Mar-2021

**Time: Three Hours****Max. Marks: 100 Marks****BIO-MECHANICS (RS5)****Q.P. CODE: 2734**

Your answers should be specific to the questions asked.  
Draw neat, labeled diagrams wherever necessary.

**LONG ESSAYS (Second Question Choice)****2 x 10 = 20 Marks**

1. Describe in detail about scapulo humeral rhythm.
2. Describe the structure of hip joint and add a note on use of a cane on Ipsilateral side.

**OR**

Define muscle contraction and enumerate the factors affecting muscle contraction, and add a note on different types of muscle contraction.

**SHORT ESSAYS (Question No 3 & 12 choice)****10 x 5 = 50 Marks**

3. Explain locking and unlocking mechanism of knee joint.

**OR**

Describe II order lever with example related to human body.

4. Explain briefly Trendelenberg gait.
5. Define end feel and enumerate different types of end feel.
6. Explain in detail about functional position of wrist and hand.
7. Explain briefly plantar arches.
8. Describe length tension relationship of a muscle.
9. Describe structure and function of temporomandibular joint.
10. Explain in brief Kinematics of wrist joint.
11. Describe pes planus and pes cavus.
12. Explain briefly Lumbo pelvic rhythm.

**OR**

Explain the concept of stability in shoulder joint.

**SHORT ANSWERS****10 x 3 = 30 Marks**

13. Define moment arm of force.
14. What are spurt and shunt muscle?
15. What is grasshopper eye patella?
16. Define axis and plane.
17. What is windlass mechanism?
18. What is kyphosis and lordosis?
19. Write in short stress strain curve.
20. Name the ligaments of hip joint.
21. What is central edge angle?
22. Define COG and LOG.