

# Rajiv Gandhi University of Health Sciences, Karnataka

## I Year B.P.T Degree Examination - 01-Feb-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. Name the structures which help in stability of lumbar vertebral column. Explain in detail the biomechanics of lumbar spine.
2. What structures comprises Extensor mechanism. Write in detail about the extensor mechanism of hand.

**OR**

Define Gait. Explain the determinants of gait in detail.

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

3. Write a note on the types of muscle fibers and its characteristic features.

**OR**

Describe the structure and function of intervertebral disc.

4. Explain briefly stability of radioulnar joint.
5. Explain open kinematic chain and closed kinematic chain with examples.
6. Define joint. Write a note on synovial joint.
7. Explain Gleno-humeral rhythm.
8. Explain the strategies to maintain postural balance.
9. Write a note on movements of temporomandibular joint.
10. Describe the function of diaphragm during ventilation.
11. Discuss in brief about supination and pronation twist.
12. Add a note on knee joint burse.

**OR**

Write a note on trabecular system of hip joint.

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

13. What is Q - angle?
14. What is metatarsal break?
15. Write any two gait deviations.
16. What is mechanical advantage?
17. What are the movements of sacrum?
18. What is young's modulus?
19. What is Active insufficiency?
20. Name the types of muscle contraction
21. What is double support time?
22. Describe meniscus.