

# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination - SEP-2018

Time: Three Hours

Max. Marks: 100 Marks

## BIO-MECHANICS (RS-5)

Q.P. CODE: 2734

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

### ESSAYS (Answer any Two)

2 x 10 = 20 Marks

1. Describe in detail about levers with examples.
2. Write in detail about Shoulder joint.
3. Explain Gait and its determinants.

### SHORT ESSAYS (Answer any Twelve)

12 x 5 = 60 Marks

4. Explain Newton's law with example.
5. Sagittal plane analysis of posture
6. Explain goniometric measurement of ROM of elbow joint.
7. Movements and muscle actions of wrist joints
8. Properties of connective tissue
9. Movements of thorax and ribcage
10. Movement analysis of sitting to standing
11. Structure and function of plantar arches
12. Analysis the forces acting on hip joint during unilateral stance phase
13. Describe Tibiofemoral Meniscus.
14. Explain any two pathological gaits.
15. Write a note on static and dynamic posture.
16. Different types of muscle contraction
17. Scapula-humeral rhythm

### SHORT ANSWERS

10 x 2 = 20 Marks

18. Precision grip
19. Convex-Concave rule
20. Carrying angle
21. Diarthrodial joint
22. Hinge joint
23. Isotonic contraction
24. Patellar movements
25. Stress-strain curve
26. Types of Goniometer
27. Open kinematic chain