



# 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 (RS4)****Q.P. CODE: 2707**

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. Define Levers. Classify levers with examples and diagrams.
2. Enumerate various grips of hand in detail with examples.

**OR**

Describe in detail about scapulohumeral rhythm and its clinical significance.

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

3. Screw home mechanism of knee joint.

**OR**

Mention in brief about various prehensions of hand.

4. Lumbopelvic rhythm.
5. Mechanics of ventilation.
6. Palmar arches.
7. Analysis of forces in Unilateral stance.
8. Define posture and mention in brief about abnormalities of posture.
9. Gait cycle in detail.
10. Pes planus and Pes cavus
11. Classify synovial joints in detail.
12. Mention in brief about different types of muscle contraction.

**OR**

Carrying angle and its significance.

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

13. Define postural sway.
14. Passive insufficiency with example.
15. Acetabular labrum importance.
16. Name the muscles of Inspiration and Expiration.
17. Squinting of patella.
18. Angle of inclination of femur and its significance.
19. Hysteresis.
20. Name the ligaments of knee joint and its functions.
21. Name the plantar arches and its attachments.
22. Name the rotator cuff muscles and its role in shoulder joint stability.