

# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – 17-Nov-2025

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 the structure of shoulder joint and add a note on static stabilizers of shoulder joint in detail.
2. Discuss the kinematics of Rib cage in detail.

**OR**

Classify Joints in detail with examples.

**SHORT ESSAYS (Question No 3 & 12 choice)**

**10 x 5 = 50 Marks**

3. Explain Newton's law of motion.

**OR**

Describe the structure of connective tissue in brief.

4. Discuss the length tension relationship of muscle.
5. Enumerate various Grips of Hand in detail.
6. Explain concurrent force systems in detail.
7. Describe Structure of subtalar joint.
8. Discuss about frontal plane analysis of posture.
9. Describe Trendelenberg gait and its significance.
10. Explain the procedure of Goniometry for measuring knee Range of Motion (ROM).
11. Explain the phases of gait in detail with neat diagrams.
12. Explain the structure of Temporomandibular Joint in detail.

**OR**

Static stability of Hip joint.

**SHORT ANSWERS**

**10 x 3 = 30 Marks**

13. What is good and Bad posture?
14. Define force and work.
15. Write any two differences between closed and open Kinematic chain.
16. What is angle of Inclination of Pelvis?
17. What is house maid's knee?
18. Name the Muscle of Mastication.
19. Name the Arthro Kinematic movements of a joint.
20. What is Syndesmosis and Synarthrosis?
21. Define cadence and Degree of toe out.
22. Define kinetic Energy and Potential Energy.

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