

# Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T Degree Examination – SEP-2017

**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 the structure of hip joint. Add a note on kinetics and kinematics.
2. Write in detail of Analysis of posture.
3. Explain biomechanics of thorax and chest wall.

### **SHORT ESSAYS (Answer any Twelve)**

**12 x 5 = 60 Marks**

4. Scapulo humeral rhythm
5. Locking and unlocking mechanism
6. Explain levers in detail.
7. Describe the types of joints.
8. Explain the parts of goniometric and its types.
9. Describe stress and strain.
10. Explain Newton law of motion.
11. Lumbo-pelvic rhythm
12. Properties of connective tissues
13. Compare and contrast different muscle contractions
14. Sitting to standing – movement analysis
15. Determinants of gait
16. Different types of grip
17. Describe joint lubrication model.

### **SHORT ANSWERS**

**10 x 2 = 20 Marks**

18. Carrying angle
19. Scoliosis
20. Concurrent force systems
21. Stair climbing
22. Patella Plica
23. Visco elasticity
24. Pes Planus and Pes Cavus
25. Pulleys
26. Open Kinematic chain
27. Palmar arches

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