

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.P.T. Degree Examination – 22-May-2023

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 (Second Question choice)

2 x 10 = 20 Marks

1. Define Lever? Explain different orders of levers with relation to human body.
2. Define Posture? Enumerate different types of posture and explain the frontal plane analysis of posture.

Or

Define Ventilation? Explain in detail kinetics and kinematics of Thoracic rib cage

SHORT ESSAYS (Question No.3 & 12 choice)

10 x 5 = 50 Marks

3. Explain Kinetics of Kinematics of Elbow Joint.
- Or**
- Explain Newtons laws of Motion.
4. Explain the structure of cervical spine.
 5. Describe Screw home mechanism of knee Joint.
 6. Define Equilibrium? Explain different types of Equilibrium.
 7. Explain determinants of Gait.
 8. Describe Scapulo humeral rhythm.
 9. Describe Palmar arches.
 10. Define Pulley? Explain the different types of pulleys in human body.
 11. Define Goniometry? And mention the procedure for Inversion and eversion.
 12. Explain synovial joints in detail with neat diagram.

Or

Explain Active Insufficiency and Passive Insufficiency.

SHORT ANSWERS

10 x 3 = 30 Marks

13. Write in short Phases of sit to stand activity.
14. What is Q angle and its significance.
15. What are Spurt and Shunt Muscles?
16. Mention the phases of Gait cycle.
17. What is Pulled Elbow?
18. Mention different types of Muscle contraction.
19. Name the ligaments of Hip Joint.
20. What is Cubitus Varus and Valgus?
21. Name the factors affecting Muscle tension.
22. Write in detail Trendelenberg gait.
