## Rajiv Gandhi University of Health Sciences, Karnataka

III Semester Bachelor of Occupational Therapy Degree Examination - 22-May-2025

Time: Three Hours Max. Marks: 100

# BIOMECHANICS (GENERAL & UE) and ERGOTHERAPEUTICS (OS/RS) Q.P. CODE: 3420

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

#### LONG ESSAYS (Answer any Two)

 $2 \times 10 = 20 \text{ Marks}$ 

- 1. Define kinetics and kinematics. Discuss different types of forces in details.
- 2. Discuss biomechanical aspect of AC joint in Shoulder.
- 3. Static and dynamic Posture. Factors affecting the posture.

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

 $10 \times 5 = 50 \text{ Marks}$ 

- 4. Explain biomechanics of Elbow joint
- 5. Define lever System. Discuss different Classes of lever with example with human body
- 6. Discuss Newton's law of motion in details.
- 7. Palmer arches in hand
- 8. Define vicarious movement. Discuss different type of Vicarious Movement in details.
- 9. Muscle around the Shoulder joint
- 10. Discuss various type of displacement
- 11. Discuss the peripheral nerve lesion in Trick movement
- 12. Discuss Extensor Mechanism in Hand
- 13. Glenohumerous motions
- 14. Major goals of postural control
- 15. Discuss various injury in Elbow joint

### **SHORT ANSWERS (Answer any Ten)**

 $10 \times 3 = 30 \text{ Marks}$ 

- 16. Mechanical Advantages
- 17. Torque
- 18. Base of Support
- 19. Carrying angel
- 20. Tennis Elbow
- 21. Gravity
- 22. Scoliosis
- 23. Froment's sign
- 24. Precision handling
- 25. Power grip
- 26. Subluxation of Shoulder
- 27. Parallel force system

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