

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**III Semester Bachelor of Occupational Therapy Degree Examination – 14-Jun-2024**

**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 x 10 = 20 Marks**

1. Discuss radioulnar joints with respect to movements, muscle producing movements and stability of joint.
2. Discuss biomechanics of glenohumeral joint with respect to articular surfaces, ligaments and motion
3. Discuss wrist joint with respect to its function and stability

**SHORT ESSAYS (Answer any Ten)**

**10 x 5 = 50 Marks**

4. Define vicarious movements. Discuss any three types with examples
5. Discuss extensor mechanism
6. Discuss motions of the scapula
7. What is postural control? Discuss factors affecting postural control
8. Discuss scapula-humeral rhythm
9. Discuss Newton's law of reaction
10. Discuss flexors and extensors of elbow joint
11. Discuss third class lever system with example
12. Discuss role of rotator cuff muscles in glenohumeral stabilization
13. Discuss mechanism of finger flexion
14. Discuss ligaments of elbow joint
15. Discuss various factors that affect posture

**SHORT ANSWERS (Answer any Ten)**

**10 x 3 = 30 Marks**

16. Discuss stress tolerance at sternoclavicular joint
17. Discuss translatory motion
18. Briefly discuss linear force system
19. Discuss effect of injury on elbow joint
20. Discuss centre of mass
21. Discuss scoliosis
22. Discuss torque
23. Discuss palmar arches
24. Discuss joint compression forces
25. Briefly discuss interossei muscles of the hand
26. Briefly discuss tensile forces
27. Discuss functional position of the wrist and hand

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