

Rajiv Gandhi University of Health Sciences, Karnataka
IV Semester Bachelor of Occupational Therapy Degree Examination – 20-Nov-2024

Time: Three Hours

Max. Marks: 100

BIOMECHANINCS (LE) and ERGOTHERAPEUTICS- (OS/RS)

Q.P. CODE: 3424

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. Define posture and its types. Explain the frontal plane analysis of posture
2. Explain about biomechanics of hip joint in detail
3. Explain the kinetics and kinematics of lumbar vertebrae

SHORT ESSAYS (Answer any Ten)

10 x 5 = 50 Marks

4. Explain the determinants of gait
5. Describe screw home mechanics of knee joint
6. Explain about ground reaction force and centre of pressure in stance phase
7. Explain about limbo-pelvic rhythm
8. Explain in detail about the kinematics of sacroiliac joint
9. Explain the kinematics of sub-talar joint
10. Discuss the effects of age and gender in using assistive devices
11. Write a note on transfer technique from bed to wheelchair
12. Explain about pronation twist of ankle joint
13. Describe the common abnormalities of spine
14. Explain about phases of stair gait
15. Explain the structure and function of facet joint

SHORT ANSWERS (Answer any Ten)

10 x 3 = 30 Marks

16. What are zygapophyseal joints?
17. Q-angle and its significance
18. What are spatiotemporal parameters
19. Brief note on the functions of atlantoaxial joint
20. Ligaments of sacroiliac joint
21. Role of menisci in knee joint
22. Functions of patella
23. What is windlass mechanism?
24. What is angle of inclination of femur?
25. What is foot drop gait?
26. Types of crutches
27. What is stride length and step length?
