

Rajiv Gandhi University of Health Sciences, Karnataka
IV Semester Bachelor of Occupational Therapy Degree Examination – 04-May-2026

Time: Three Hours
100

Max. Marks:

BIOMECHANICS (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 Gait and explain the phases of gait cycle
2. Explain the kinetics and kinematics of hip joint in detail
3. Explain in detail about biomechanics of cervical joint

SHORT ESSAYS (Answer any Ten)

10 x 5 = 50 Marks

4. Explain about plantar arches and its significance in detail
5. Briefly explain about supination twist of ankle joint
6. Describe the structure of intervertebral disc
7. Explain about lumbo-pelvic rhythm
8. Explain the role of ACL in knee joint stability
9. Describe the common abnormalities of spine
10. What is plantar fasciitis? Explain the role of plantar aponeurosis
11. Explain about sliding board transfer technique
12. Explain about use of cane ipsilaterally and contralaterally
13. Explain the concept of functional ambulation with example
14. What is orthosis? Write a brief note on the effects of orthosis in elderly
15. Explain about the running gait

SHORT ANSWERS (Answer any Ten)

10 x 3 = 30 Marks

16. What is Q angle and its significance?
17. What is cadence and its normal value?
18. Ligaments of knee joint
19. What is metatarsal break?
20. Functions of pelvic floor muscles
21. Brief note on deformities of ankle joint
22. Trendelenburg gait
23. What is patella alta and patella baja?
24. Functions of ligamentum flavum
25. Functions of plantar fascia
26. What is central wedge angle?
27. What is nutation and counter-nutation?
