Rajiv Gandhi University of Health Sciences, Karnataka

IV Semester Bachelor of Occupational Therapy Degree Examination – 28-Oct-2026

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. Describe in detail structure and functions of arches of foot
2. What are the ligaments of hip joint? Explain unilateral and bilateral stance with examples
3. Define gait. Mention the phases of gait cycle. Explain the sagittal plane analysis of gait

SHORT ESSAYS (Answer any Ten) **10 x 5 = 50 Marks**

4. Compare the use of cane on ipsilateral and contralateral side of injury
5. What is gait cycle? Describe the energy expenditure during the normal gait
6. Discuss the importance of anatomical pulley in occupational therapy
7. Define MMT. Explain the MMT of hip flexors and extensors
8. Explain the goniometric measurement of ROM of ankle joint
9. explain the temporo-spatial parameters of gait
10. Explain locking and unlocking of knee joint
11. Explain the structure and functions of menisci at knee joint
12. Explain the dynamic stability of ankle joint
13. Explain the kinetics and kinematics of subtalar joint
14. Explain Lumbopelvic rhythm
15. Describe patellofemoral joint articulations and patellofemoral joint reaction forces

SHORT ANSWERS (Answer any Ten) **10 x 3 = 30 Marks**

16. Index plus minus foot
17. What are the characteristics of gluteus medius gait?
18. Acetabular anteversion
19. Patella plica
20. Femoral anteversion and retroversion
21. Pes cavus
22. Genu valgus and varus
23. What is windlass mechanism?
24. What is center edge angle?
25. Enumerate the muscles responsible for knee extension
26. What is metatarsal break?
27. Types of Cane

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