

BIO-MECHANICS (Revised Scheme .4)

Q. P. CODE: 2707

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 explain in detail about Kinetics and Kinematics of Posture.
2. Discuss in detail about Mechanics of Ventilation.
3. Describe in detail about structure and function of arches of foot.

SHORT ESSAYS (Answer any Twelve)

12 x 5 = 60 Marks

4. Compare the use of cane on ipsilateral and contralateral side of injury.
 5. Explain the extensor mechanism of Hand.
 6. Enumerate the different types of precision grips with muscle action.
 7. Discuss the importance of anatomical pulleys in physiotherapy.
 8. Enumerate the different types of force systems with relation to human body.
 9. Discuss any five differences between slow twitch and fast twitch muscle fibers.
 10. Explain in brief about static stabilizers of knee Joint.
 11. Mention in detail about determinants of gait. **12!**
- Explain in brief about kinematics of cervical spine.**
13. Sliding filament theory of muscle contraction
 14. Movement analysis of sit to stand
 15. Mention the role of palmar arches in gripping an object.
 16. Mention the various factors affecting Muscle function.
 17. Closed kinematic chain and open kinematic chain with examples

SHORT ANSWERS

10 x 2 = 20 Marks

18. Hysteresis
19. Pes planus and Pes cavus
20. Wartenberg sign
21. What is squinting of patella?
22. What is Closed packed position and Open packed position?
23. Coxa valga and Coxa vara
24. Define work, power and energy.
25. Significance of Carrying angle
26. Name the distance variables of gait.
27. Name the muscles responsible for Mastication.

4;11g *Yr*