

Rajiv Gandhi University of Health ScienceI Year B.P.T. Degree Examination - SEP -
2016

Time: Three Hours

Max. Marks: 100 Marks

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 Gait. Mention the phases of gait cycle. Explain sagittal plane analysis of gait.
2. DISCUSS in detail kinetics and kinematics of thoracic rib cage.
3. Classify joints in detail with examples and neat diagrams.

SHORT ESSAYS (Answer any Twelve)**12 x 5 = 60 Marks**

4. Discuss briefly about length tension and force velocity relationship of a muscle.
5. Define anatomical pulley and explain in detail with an example in human body.
6. Define Lever and explain in detail about III order lever with example and neat diagram.
7. Explain the structure of Temporomandibular joint.
8. Musculoskeletal changes following COPD
9. Classification of synovial joints in detail
10. Classify different types of joint lubrication in detail.
11. Time dependent and rate dependent properties of connective tissue
12. Energy expenditure of gait
13. Kinetics and kinematics of posture
14. Enumerate various pinches of hand complex.
15. Structure of shoulder complex
16. Mention in detail about various deviations occurring at knee joint.
17. Static stability of hip joint

SHORT ANSWERS**10 x 2 = 20 Marks**

18. Good and bad posture
19. Name the ligaments of shoulder joint.
20. Functions of Meniscus
21. Clinical significance of plantar arches
22. Static and dynamic balance

23. Name the factors affecting muscle function.

24. COG and LOG
25. Kinetics and Kinematics
26. Angle of Inclination of Humerus

27. **Active insufficiency**

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