

Q.P. Code: 201014 (Old Scheme) Reg. No.:.....

## Second Year BPT Degree Supplementary Examinations September 2018

## **Biomechanics**

## (2010 Scheme)

Time: 3 hrs Max marks: 100

- Answer all questions
- Draw diagrams wherever necessary

Essays (2x10=20)

1. Define lumbopelvic rhythm. Discuss in detail the normal rhythm during lumbar flexion

2. Explain the structure and function of the extensor mechanism of the hand

Short notes (10x5=50)

- Define moment arm. Explain how does it affect the ability of a force to rotate a segment
- 4. Discuss briefly the structure of a tendon
- 5. Explain the structure and function of meniscus in knee joint
- 6. Compare open chain with closed chain movements. Give example for each
- 7. Explain frontal plane analysis of posture
- 8. Describe the articulations of the chest wall
- 9. Explain precision grips
- 10. Describe the articulating surfaces of the hip joint
- 11. Explain the ligaments of the temporomandibular joints
- 12. Describe the movements of the scapula at the acromioclavicular joint

Answer briefly (10x3=30)

- 13. Define angle of pull
- 14. Supination twist
- 15. What is coxa vara
- 16. Ulnar variance
- 17. Classify muscles
- 18. Anterior cruciate ligament
- 19. Describe the attachment of the plantar fascia
- 20. Define posture
- 21. Classify gait cycle
- 22. What is genu valgum

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