

KALOJI NARAYANA RAO UNIVERSITY OF HEALTH SCIENCES
TELANGANA STATE, WARANGAL – 506 002
BPT SECOND YEAR DEGREE EXAMINATIONS: JANUARY, 2025

BIOMECHANICS AND APPLIED ANATOMY

Time: 3 Hours

Max Marks: 80

Note: Answer all questions

Draw diagrams wherever necessary

Write an essay on the following:

2 X 10 = 20

1. A) Explain in detail about ligaments and muscles of Vertebral Column.
Add a note on Chest-Wall Movements.

OR

- B) Write about Kinetics and Kinematics Analysis of Hip Complex.

2. A) Describe the muscles Structure and function with Sliding Filament Theory during Muscles Contraction.

OR

- B) Write about kinetics and Kinematics of Wrist Complex with precision and prehension function of Hand.

Write a short note on the following:

8 X 5 = 40

3. Concentric and Eccentric Contractions.
4. Sternoclavicular Joint.
5. Mobility and Stability of Elbow Complex.
6. Pelvic motion in Static Erect Posture.
7. Properties of Connective Tissue.
8. Screw Home Mechanism.
9. Newton's Law of Reaction.
10. Plantar Arches of Foot.

Write briefly on the following:

10 X 2 = 20

11. 'Q' Angle.
12. Pes Cavus.
13. Types of Motion.
14. Law of Inertia.
15. Closed Kinematic Chain.
16. Lumbo pelvic Rhythm.
17. Swing Phase.
18. Name two Synergists.
19. Coxa Vara and Genu Recurvatum.
20. Patella Alta.