

**First Year BPT Degree Regular/Supplementary Examinations**  
**January 2023**

**Paper III – Biomechanics and Kinesiology**

**(2016 Scheme)**

**Time: 3 hrs**

**Max marks: 100**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

**Essays**

**(2x15=30)**

1. Explain Scapulohumeral rhythm. Explain the phases of scapulohumeral rhythm in detail with neat diagram
2. Describe the normal curves of vertebral column and discuss the factors responsible for its mobility and stability

**Short Essays**

**(4x10=40)**

3. Active and passive insufficiency
4. Explain about the extensor mechanism of wrist and hand
5. Pivot joint
6. Bursae around the knee

**Short Answers**

**(10x3=30)**

7. Pulleys.
8. Functional position of hand
9. Force couple
10. Axes and planes
11. Explain nutation and counternutation
12. Claw toes
13. Anteversion and retroversion
14. Ligament of bigelow
15. Hookes law
16. Give three uses of plantar arches