

**First Year BPT Degree Regular/Supplementary Examinations**  
**July 2021**

**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. Describe the structure of cervical vertebra and explain its kinematics.
2. List the joints of rib cage and describe the mechanism of normal breathing

**Short Essays****(4x10=40)**

3. Explain the structure of wrist joint and discuss the sequence of events occurring during movements of the wrist joint.
4. Mention the ligaments of the vertebral column and explain their role in the stability of it.
5. Discuss the static and dynamic stability of shoulder complex.
6. What is a lever, give its types. Add a note on the applications of levers in physiotherapy.

**Short Answers****(10x3=30)**

7. Uses of meniscus in knee joint.
8. Define passive insufficiency.
9. Define carrying angle. Define pes cavus and pes planus.
10. What are the features of ideal posture.
11. List the movements of the subtalar joint.
12. Give three uses of plantar arches.
13. Role of COG in the human body.
14. What are the motions of upper limb and trunk during normal gait.
15. The functional significance of palmar arches.
16. Give few effects of immobilization on the muscle properties.