

First Year BPT Degree Regular/Supplementary Examinations
January 2024

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. Discuss in detail about the structure and function of the arches of foot.
2. Define joint. Explain the types of joints in detail.

Short Essays

(4x10=40)

3. Discuss scapulo humeral rhythm and its significance.
4. Methods of reduction of hip joint compression in unilateral stance.
5. Discuss lever systems in detail. Add notes on mechanical advantage.
6. The muscles acting during knee movements.

Short Answers

(10x3=30)

7. Newton's 2nd law.
8. Ankle mortise.
9. Angle of torsion of the femur.
10. Patella alta.
11. Inversion and eversion of foot.
12. Typical vertebrae.
13. Moment arm.
14. Q angle.
15. Center of Gravity (COG) and Line of Gravity (LOG).
16. Cadence.
