

Registration no:

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Total Number of Pages: 01

Course: BPT

SUBJECT NAME: Biomechanics & Kinesiology

SUB\_CODE: 23ABP304

3<sup>rd</sup> Semester Examination 2023 Batch

BRANCH: Allied Courses

Q. CODE: A463

Max Time: 3 Hours

Max Marks: 80

Sitting: 1<sup>st</sup> 10.00 AM to 1.00 PM

All Questions are compulsory. Illustrate answer with diagrams wherever relevant / required

The figures in the right-hand margin indicate marks.

- Q 1 Long Answer Question (Answer any one out of two) (1 X 15 marks)**
- Discuss walking aids in detail.
  - Explain osteokinematics and arthrokinematics of elbow joint and its function
- Q 2 Long Answer Question (Answer any one out of two) (1 X 15 marks)**
- Discuss the muscle groups of vertebral column
  - Describe myokinetics of human gait.
- Q 3 Long Answer Question (Answer any one out of two) (1 X 15 marks)**
- What is posture? Discuss the postural mechanism
  - Describe different force systems and discuss its effect on a standing object with diagram
- Q 4 Short Answer Questions (Focused) (Answer any two out of three) (2 x 5 marks)**
- Scoliosis
  - Arches of foot
  - Muscular weakness and Atrophy
- Q 5 Short Answer Questions (Applied) (Answer any two out of three) (2 x 5 marks)**
- Pronation of foot
  - Passive insufficiency
  - Classification of lever
- Q 6 Short Answer Case based question (Answer any two out of three) (2 x 5 marks)**
- Precision grip
  - Friction
  - Isotonic muscle work
- Q 7 Objective Type (Fill in the blanks) (5 x 1 mark)**
- An exaggerated lumbar curve is clinically referred to as \_\_\_\_\_
  - A muscle contraction where the muscle produces force while lengthening is known as \_\_\_\_\_ contraction
  - The strongest ligament of the hip joint is the \_\_\_\_\_.
  - Newton's Second Law of Motion is also known as the \_\_\_\_\_.
  - The "screw-home" mechanism of the knee involves \_\_\_\_\_ rotation of the tibia on the femur during the final degrees of extension

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