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The Assam Royal Global University, Guwahati

Royal School of Medical and Allied Sciences

Bachelor of Physiotherapy, 2nd Semester

Semester End Examination, June 2023

Course Title: Biomechanics-II

Course Code : PHT242C213

Time: 3 Hours

Maximum Marks: 70

Note: Attempt all questions as per instructions given.

The figures in the right-hand margin indicate marks.

Section – A

1. Attempt **all** questions. (Maximum word limit 50) 2 x 8
- Describe about closed chain and open chain kinematics.
 - What is pelvifemoral rhythm?
 - Define Atypical Vertebrae. Give examples
 - What is Synovial Joint?
 - Define Static and dynamic posture.
 - What is Postural sway?
 - Define kinetics and kinematics of gait.
 - Write the major tasks of gait.

Section – B

2. Attempt **any one** of the following: 12 x 1
- Explain the general properties of connective tissues.
 - Write the function of hip joint.
3. Attempt **any two** of the following: 7 x 2
- Discuss the structure and functions of Cervical Spine
 - Explain the Lumbar Pelvic Rhythm in detail.
 - Write in details about the articulations of Thorax.
4. Attempt **any two** of the following: 7 x 2
- Explain fixed support strategies of posture.
 - Detail out the analysis of posture in sagittal plane.
 - Explain their views of posture with examples.
5. Attempt **any two** of the following: 7 x 2
- What is gait and gait cycle? Explain the phases and events of gait cycle.
 - Describe about kinetics and kinematics variables of gait.
 - Write about the patellofemoral articular surfaces and joint congruence with diagram.