

P P SAVANI UNIVERSITY

Fifth Semester of B.P.T Examination
January 2022

SPPT3050 Biomechanics and Kinesiology

07.02.2022, Monday

Time: 09:30 a.m. To 12:30 p.m.

Maximum Marks: 70

Instructions:

1. The question paper comprises of two sections.
2. Section I and II must be attempted in separate answer sheets.
3. Make suitable assumptions and draw neat figures wherever required.
4. Use of scientific calculator is allowed.

SECTION - I

Q - 1 Essay Question(Any One)

[10]

- (i) Write in detail about wrist joint mechanics
- (ii) Define Posture and analyze Posture in sagittal Plane

Q - 2 Short Note(Any Two)

[10]

- (i) Prehension activities of Hand
- (ii) Ligaments of Vertebral column
- (iii) Acromio clavicular joint motions

Q - 3 Very Short Notes(Any Five)

[15]

- (i) Closed and open Kinematic motions with example
- (ii) Carrying angle of elbow
- (iii) Rotator cuff interval
- (iv) Five Kinematic principle behind Gleno-humeral Rhythm
- (v) Concave convex rule with example
- (vi) Angle of torsion and inclination in Humerus
- (vii) Functional position of hand

SECTION - II

Q - 1 Essay Question(Any One)

[10]

- (i) Write mechanics of Patello femoral Joint.
- (ii) Explain Locking and Unlocking of Knee.

Q - 2 Short Note(Any Two)

[10]

- (i) Write about functions of transverse tarsal joint
- (ii) Muscles of Inspiration
- (iii) Action of Psoas major and Quadratus Lumborum

Q - 3 Very Short Notes(Any Five)

[15]

- (i) Q angle
- (ii) Lumbo sacral rhythm
- (iii) Gluteus maximus gait
- (iv) Genu Valgum and Genu Varum
- (v) Kinesiological analysis of getting up from chair.
- (vi) Trendelenburg Sign
- (vii) Ligaments of Shoulder joint
