

51216
SECOND BPTH (2012) Examination, Summer (Phase - III
All Other Remaining UG/PG Courses) - 2020
KINESIOLOGY



Total Duration : Section A + B = 3 Hours

Total Marks : 80

SECTION - A & SECTION - B

- Instructions :**
- 1) Use **blue/black** ball point pen only.
 - 2) **Do not** write anything on the **blank portion** of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
 - 3) **All** questions are **compulsory**.
 - 4) The number to the **right** indicates **full** marks.
 - 5) Draw diagrams **wherever** necessary.
 - 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
 - 7) Use a common answer book for all sections.

SECTION - "A" SAQ (50 Marks)

1. Short answer question (any five out of six) : [5 × 3 = 15]

- 11+23+19 = 53
- a) Torque. 2
 - b) Q angle. 3
 - c) Motor Unit. 2
 - d) Concave-convex rule. 3
 - e) Describe intrinsic plus and minus position.
 - f) Metatarsal break. 1

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[5 × 7 = 35]

2. Short answer question (any five out of six):
- 5 a) Knee Extensor Mechanism.
 - 5 b) Lumbopelvic rhythm.
 - c) Kinematics of Thorax.
 - 2 d) Discuss kinetics & kinematics of TM Joint.
 - 5 e) Describe structure and function of IV disc.
 - 5 f) Dynamic stabilizers of shoulder.

SECTION - "B" LAQ (30 Marks)

3. Long answer questions (any one out of two) : [1 × 15 = 15]

- 9 a) Write in detail about biomechanics of hip joint with reference to kinematics, kinetics and unilateral stance. (5 + 5 + 5)
- 13 b) Discuss in detail kinetics and kinematics of gait cycle. (8 + 7)

4. Long answer questions (any one out of two) : [1 × 15 = 15]

- a) Discuss in detail kinetics and kinematics of elbow joint. (7 + 8)
- 10 b) Describe biomechanics of cervical spine with reference to articulation, kinematics and ligaments. (5 + 5 + 5)



[Total No. of Pages : 2

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Second B.P.T.H. (2012) Examination, Summer - 2021

KINESIOLOGY

Total Duration : 3 Hours

Total Marks : 80

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 - 3) **All questions are compulsory.**
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 - 7) Use a common answerbook for all sections.

SECTION - "A" SAQ (50 Marks)

1. Short answer question (**any five** out of six) : [5 × 3 = 15]
 - a) Creep
 - ~~b) Young's modulus~~
 - ~~c) Contractile and non contractile structure~~
 - ~~d) Types of muscle fiber~~
 - ~~e) Ligaments of shoulder joint~~
 - ~~f) Convex and concave rule~~

2. Short answer question (**any five** out of six) : [5 × 7 = 35]
 - ~~a) Passive insufficiency with suitable example~~
 - ~~b) Structure of a diarthrodial joint~~
 - ~~c) Stress strain curve~~
 - ~~d) Compare close chain with open chain and give examples of each~~
 - ~~e) Explain how immobilization affects joint structures~~
 - f) Compare the composition, properties and function of ligaments with those of tendons

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SECTION - "B" LAQ (30 Marks)

3. Long answer question (**any one** out of two) :

[1 × 15 = 15]

a) Explain in detail about the kinematics of hip joint under the following headings :

i) Movement of femur on pelvis

ii) Movement of pelvis on hip

iii) Coordination movement of hip, spine and femur

[5 + 5 + 5]

b) Explain in detail the kinematics and kinetics of the lumbar spine in detail.

[8 + 7]

4. Long answer question (**any one** out of two) :

[1 × 15 = 15]

a) Explain in detail the biomechanics of wrist joint under the following headings :

i) Osteokinematics

ii) Arthrokinematics

[8 + 7]

b) Explain in detail the biomechanics of the thorax under the following headings :

i) Pump handle movements

ii) Bucket handle movements

iii) Muscles of inspiration and expiration

[5 + 5 + 5]



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Second B.P.TH. (2012) Examination, Phase-II Summer - 2022
KINESIOLOGY

Total Duration : 3 Hours

Total Marks : 80

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 - 3) All questions are compulsory.
 - 4) The number to the right indicates full marks.
 - 5) Draw diagrams wherever necessary.
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 - 7) Use a common answer book for all Sections.

SECTION "A" SAQ (50 Marks)

1. Short answer question (any five out of six) : [5 × 3 = 15]
 - a) Carrying angle of elbow joint
 - b) Q angle
 - c) Torque
 - d) Define arthrokinematics
 - e) Enumerate classification of joints
 - f) Concave convex rule

2. Short answer question (any five out of six): [5 × 7 = 35]
 - a) Basic principles of connective tissue
 - b) Write a note on prehensile function of hand.
 - c) Explain stress-strain curve.
 - d) Active and passive insufficiency with examples.
 - e) Describe Types of muscle contraction.
 - f) Lumbo-pelvic Rhythm

SECTION "B" LAQ (30 Marks)

3. Long answer question (any one out of two): [1 × 15 = 15]
- a) Define gait cycle. Describe Kinetics and kinematics of gait cycle.
 - b) Define Lever. Discuss Types of Lever with examples.
4. Long answer question (any one out of two) [1 × 15 = 15]
- a) Enumerate shoulder complex. Discuss kinetics and kinematics of glenohumeral joint.
 - b) Discuss Knee complex. Discuss factor affecting knee stability.



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Second B.P.TH. (2012) Examination, Summer - 2023 (Phase - III)
KINESIOLOGY

Total Duration : 3 Hours

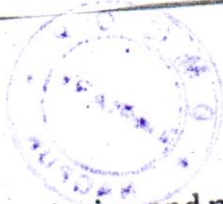
Total Marks : 80

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SECTION - "A" SAQ (50 Marks)

1. Short answer question (**any five** out of six) : [5 × 3 = 15]
 - a) Note on carrying angle of elbow.
 - b) Note on classification of joint.
 - c) Passive insufficiency.
 - d) Write a note on Q- Angle.
 - e) Close pack position of hip joint.
 - f) Class Three Levers.

2. Short answer question (**any five** out of six) : [5 × 7 = 35]
 - a) Explain Anatomical pulleys in hand complex in detail.
 - b) Describe arches of foot and it's function.
 - c) Define Osteokinematics and Arthrokinematics. Explain it with examples.



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- d) Active and passive stabilization of shoulder.
- e) Explain factors affecting muscle function.
- f) Explain kinematics of cervical vertebrae.

SECTION - "B" LAO (30 Marks)

3. Long answer question (any one out of two):

[1 × 15 = 15]

a) Describe different phases in ^{stance} stance phase of the gait with muscle work.

b) Discuss shoulder joint complex in detail under following headings.

[5 + 5 + 5]

- i) Articulations
- ii) Kinematics
- iii) Kinetics

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4. Long answer question (any one out of two):

[1 × 15 = 15]

a) Write a note of kinetics, kinematics of ankle joint emphasizing on subtalar joint movement.

[4 + 4 + 7]

b) Discuss hip joint in detail under following headings.

[5 + 5 + 5]

- i) Articulations
- ii) Kinematics
- iii) Kinetics

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Second B.P.TH. (2012) Examination, Summer - 2025 Phase - II
KINESIOLOGY



Total Duration : 3 Hours

Total Marks : 80

- Instructions :**
- 1) Use **black** ball point pen only.
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 - 7) Use a common answerbook for **all** sections.

SECTION - A SAQ (50 Marks)

1. Short Answer Questions (**any five** out of six) : [5×3=15]
 - a) Enumerate thenar & hypothenar muscles.
 - b) Explain Temporo-Mandibular joint articulation.
 - c) Define motor unit.
 - d) Define step length & stride length.
 - e) Explain kinematics of pushing
 - f) Discuss Concave-convex rule.

2. Short Answer Questions (**any five** out of six) : [5×7=35]
 - a) Describe Arches of foot.
 - b) Discuss Kinetics and kinematics of elbow joint.
 - c) Discuss Kinetics & kinematics of hip joint.
 - d) Explain types of muscle contraction.
 - e) Explain Classification of joints.
 - f) Discuss Grips & pinches of hand.

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SECTION - B LAQ (30 Marks)

3. Long Answer Questions (Solve any 1 out of 2) : [1×15=15]
- a) Discuss Kinetics & kinematics of glenohumeral joint. Write a note on scapulohumeral rhythm. [8+7]
 - b) Describe kinetics & kinematics of cervical spine. Add a note on craniovertebral angle. [10+5]
4. Long Answer Question (any one out of two): [1×15=15]
- a) Define gait cycle. Define phases of gait. Describe kinetics & kinematics of swing phase of gait. [2+5+8]
 - b) Describe kinetics & kinematics of Patellofemoral joint. Write a note on locking & unlocking of knee joint. [8+7]

