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## BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Physiotherapy-2022/B.Physiotherapy-2023/B.Physiotherapy-2024

Course Name – Exercise Therapy - I

Course Code - BPTC203

( Semester II )

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Find out the line about which movement takes place.
  - a) Inclined plane
  - b) vertical line
  - c) axis
  - d) plane
- (ii) Identify the planes and axis for hip flexion.
  - a) vertical plane & horizontal axis
  - b) sagittal axis & frontal plane
  - c) frontal axis & sagittal plane
  - d) horizontal plane & vertical axis
- (iii) Select the correct option In isometric type of contraction.
  - a) tone is equal/same
  - b) tone will change
  - c) length will change
  - d) length will same/equal
- (iv) Express the progression for De lorme & Watkins technique.
  - a) Once in a week
  - b) 2 -3 month
  - c) yearly
  - d) Each day
- (v) Identify the agonist muscle during elbow flexion.
  - a) Biceps brachi
  - b) Triceps
  - c) Rhomboids
  - d) Trapizius
- (vi) Choose the close kinematic chain exercise.
  - a) Sit to stand
  - b) elbow flexion
  - c) squatting
  - d) Plantar flexion
- (vii) Select the friction technique
  - a) Circular friction
  - b) Horizontal friction
  - c) both 1 & 2
  - d) angular friction

- (viii) Choose clapping is an example of
- Percussion
  - Pressure
  - Stroking
  - Vibration manipulation.
- (ix) Express the knee flexor muscle
- Hamstring
  - Quadriceps
  - Biceps
  - Triceps
- (x) Write the example of isotonic exercise.
- Biceps curl with dumble
  - Elbow flexion with theraband
  - both 1 & 2
  - squating
- (xi) Write 5 RM load refers to
- A weight that can be lifted less than 5 times as it is too heavy
  - A maximum weight that can be lifted for minimum 5 times
  - A minimum weight that can be lifted for maximum 5 times
  - A weight that can be lifted only 5 times and is too heavy to be lifted more than 10 times
- (xii) Name the open kinematic chain exercises.
- Dorsiflexion
  - squat
  - push ups
  - plank
- (xiii) Select the grade 0 of MMT
- No contraction
  - Flicker
  - Moderate
  - Very low
- (xiv) State the correct option for GRF acting on human body.
- Gravity resistance force
  - Gravity reaction force
  - Ground resistance force
  - Ground reaction force
- (xv) Choose the normal end-feel of knee joint.
- Hard
  - Empty
  - Soft
  - None of these

#### Group-B

(Short Answer Type Questions)

3 x 5=15

- Describe the passive insufficiency of a muscle with example. (3)
- Restate about concentric and eccentric muscle contraction with example. (3)
- Explain the example of 3rd order lever in human body. (3)
- Discuss the role of breathing during relaxation exercises. (3)
- Explain about the physiological barrier and anatomical barrier during passive movement. (3)

OR

Explain the types of resistance exercise with example. (3)

#### Group-C

(Long Answer Type Questions)

5 x 6=30

- Discuss the procedure of goniometry for measuring the glenohumeral joint abduction. (5)
- Explain the principles of manual muscle testing. (5)
- Describe the difference between open and closed kinematic chain exercises. (5)
- Describe the contraindications of massage. (5)
- Identify the factors of delayed onset of muscle soreness post resisted training. (5)
- Explain briefly the physiological effects of Massage. (5)

OR

Describe the concave-convex rule with example, diagram.

(5)

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