



HAV-9006

Seat No. _____

Second Year B. Physiotherapy Examination

July - 2017

Exercise Therapy - II & Kinesiology

Time : 3 Hours]

[Total Marks : 100

SECTION - I

- 1 Long essay : (any two) 2×10=20**
- (1) Explain posture drainage procedure for lower lobe of lung.
 - (2) Describe grades of mobilization and add note on indications, contra - indication and precaution of joint mobilization.
 - (3) Write physiotherapy management for 23 year old male suffering from right side scoliosis.
- 2 Short essay : (any two) 2×5=10**
- (1) Mechanical lumbar traction
 - (2) Explain procedure to test strength of quadriceps
 - (3) Describe physiological effect of aerobic exercises.
- 3 Very short essay : (any five) 5×2=10**
- (1) Hold and relax technique
 - (2) Stretching technique of calf muscle
 - (3) Principles of hydrotherapy
 - (4) Define posture, factors influencing posture
 - (5) Frenkel's exercise
 - (6) Relaxation technique
- 4 Multiple choice question (MCQ) : 10×1=10**
- (1) Low resistance and high repetition exercise is used to improve muscle
 - (a) strength
 - (b) edurance
 - (c) co-ordination
 - (d) co-contraction
 - (2) Lateral trunk bending is typical sign of weakness of _____ muscle.
 - (a) gluteus medius and minimus
 - (b) gluteus maximus
 - (c) rectus abdominis
 - (d) multifidus

- (3) Which of the following is most appropriate indication for reduction of tone in a hypertonic muscle ?
- rhythmic initiation
 - rhythmic stabilization
 - contract relax
 - repeated contraction
- (4) The medical term meaning "difficulty in breathing" is
- dyspnea
 - apnea
 - eupnea
 - badypnea
- (5) Which is contraindication of stretching ?
- recent fracture
 - hypermobility
 - instability of spine
 - all of above
- (6) For traction to be effective, the force must exceed the functional resistance encountered by the body part. For cervical traction the force should be
- more than 1/10 of body weight
 - more than 1/4 of body weight
 - more than 1/3 of body weight
 - more than 1/2 of body weight
- (7) To assess the muscle power of hamstring patient position should be -
- prone
 - supine
 - sitting
 - side line
- (8) Posterior pelvic tilt cause -
- decrease lumbar lordosis
 - increase lumbar lordosis
 - no change
 - all of above
- (9) Following has a bony end feel -
- knee extension
 - elbow extension
 - ankle dorsiflexion
 - wrist flexion
- (10) During inspiration lateral diameter of thoracic cage increase by -
- pump handle movement
 - bucket handle movement
 - piston movement
 - none of above

SECTION - II (Kinesiology)

- 5 Long essay : (any **two**) **2×10=20**
- (1) Write in detail about structural and functional classification of joint.
 - (2) Scapula - humeral and lumbo - pelvic rhythm.
 - (3) Define gait. Explain in detail about various phases of gait. Add a note on abnormal gait.
- 6 Short essay : (any **two**) **2×5=10**
- (1) Discuss biomechanics of normal respiration
 - (2) Types of prehension
 - (3) Discuss osteokinematic and arthrokinematics of ankle joint.
- 7 Very short essay : (any **five**) **5×2=10**
- (1) Stress - strain curve
 - (2) Active and passive insufficiency with example
 - (3) Concave - convex rule
 - (4) Angle of torsion
 - (5) Ligament of knee joint
 - (6) Carrying angle of the elbow
- 8 Multiple choice question (MCQ) : **10×1=10**
- (1) Function of synovial fluid all except -
 - (a) nutrition supply
 - (b) lubrication
 - (c) stability
 - (d) shock absorber
 - (2) Q-angle is -
 - (a) angle of quadriceps muscle
 - (b) angle between tibia and femur
 - (c) angle of torsion
 - (d) none of above
 - (3) Position of patella is higher than normal -
 - (a) patella alta
 - (b) patella baja
 - (c) squinter patella
 - (d) grasshopper eye

- (4) Intervertebral disk tissue intrudes into endplate forming -
- (a) herberden's node
 - (b) nucleus pulposis
 - (c) compression fracture
 - (d) schmorl's nides
- (5) Winging of scapula is due to weakness of -
- (a) trepezius (b) sternocledomastoid
 - (c) pectoralis major (d) serratus anterior
- (6) Decrease in neck shaft angle of femur is known as -
- (a) coxa vara (b) coxa valga
 - (c) antetorsion (d) retrotorsion
- (7) Rectus femoris muscle become passively insufficient when knee is in flexion and hip in -
- (a) flexion (b) extension
 - (c) abduction (d) adduction
- (8) Trigger finger occurs due to -
- (a) rupture of tendon (b) thickening of annular pulley
 - (c) rupture of pulley (d) all of above
- (9) Zona orbicularis is a -
- (a) longitudinal fibers of hip joint capsule
 - (b) superficial fibers of hip capsule
 - (c) deep fibers of hip capsule
 - (d) none of above
- (10) Lateral epicondilitis is known as -
- (a) golfer's elbow (b) tennis elbow
 - (c) bowler elbow (d) swimmer elbow