



**PR-9006**

Seat No. \_\_\_\_\_

**Second Year B. P. T. Examination**

**July – 2018**

**Exercise Therapy - II**

Time : 3 Hours]

[Total Marks : 100

**Instructions :**

- (1) Write legibly.
- (2) Draw diagrams where necessary.
- (3) Figure to the right indicate marks.

**SECTION - I**

- 1** Answer any two from the following : **20**
  - (a) What is MMT ? Write down principles of MMT. How will you check the strength of Hamstring muscle ?
  - (b) What is PNF ? Explain basic principles of PNF. Write in detail about D2 flexion technique.
  - (c) Define mobilization. Write down the different grades, indications and contraindications of mobilization. How will you improve shoulder abduction with mobilization ?
  
- 2** Answer any two from the following : **10**
  - (a) Frenkel's exercises
  - (b) Postural Drainage for upper lobes
  - (c) Relaxation.
  
- 3** Answer any five from the following : **10**
  - (a) Hydrotherapy
  - (b) Plyometrics
  - (c) Rhythmic stabilization
  - (d) Autogenic inhibition technique
  - (e) DAPRE
  - (f) Uses of Aerobic Exercises.

4 Multiple Choice Questions :

10

- (1) PNF stretching is .....
  - (a) Active stretching
  - (b) Passive stretching
  - (c) Self stretching
  - (d) All of above
- (2) To improve Wrist flexion ..... glide is used.
  - (a) Volar
  - (b) Ulnar
  - (c) Dorsal
  - (d) Radial
- (3) Resistance training can be given by .....
  - (a) Dumbbells
  - (b) De Lorme Shoe
  - (c) Thera tubes
  - (d) All of above
- (4) Adaptive shortening of soft tissues is known as .....
  - (a) Hypermobility
  - (b) Hypomobility
  - (c) Both
  - (d) None
- (5) DOMS occurs due to which type of muscle contraction ?
  - (a) Concentric
  - (b) Eccentric
  - (c) Isometric
  - (d) Isokinetic
- (6) Low repetition with high resistance will improve .....
  - (a) Endurance
  - (b) Co-ordination
  - (c) Strength
  - (d) None
- (7) A patient is able to plantarflex the foot only in supine position. Which MMT grade is applicable to the patient ?
  - (a) 2
  - (b) 3
  - (c) 4
  - (d) 5
- (8) Which is not related to plyometrics ?
  - (a) Facilitative cycle
  - (b) Stretch cycle
  - (c) Shortening cycle
  - (d) Amortization phase
- (9) Which is true for the response to exercise ?
  - (a) Increase in cardiac output
  - (b) Increase in heart rate
  - (c) Increase in respiratory rate
  - (d) All of above
- (10) Hydrotherapy is contraindicated in .....
  - (a) Severe peripheral vascular disease
  - (b) Unstable angina
  - (c) Both
  - (d) None

## SECTION - II

- 5** Answer any two from the following : **20**
- (a) Define Posture. Write down in detail about the deviations of posture affecting spine.
  - (b) Write down the biomechanics of Shoulder joint.
  - (c) Biomechanics of respiration.
- 6** Answer any two from the following : **10**
- (a) Locking and unlocking of knee
  - (b) Scapulohumeral rhythm
  - (c) Classification of joints.
- 7** Answer any five from the following : **10**
- (a) Active and passive insufficiency
  - (b) Two Examples of second order lever
  - (c) Types of Power grip
  - (d) Pelvic tilting
  - (e) Q angle
  - (f) Name the phases of Gait cycle.
- 8** Multiple Choice Questions : **10**
- (1) Example of Close chain exercise is .....
    - (a) Push ups
    - (b) Squatting
    - (c) Lunges
    - (d) All of above  - (2) The point beyond which the tissue does not return to its original shape and size is known as .....
    - (a) Elastic limit
    - (b) Toe region
    - (c) Failure
    - (d) None of above  - (3) New point on one surface meet new point on the opposing surface is .....
    - (a) Spinning
    - (b) Sliding
    - (c) Rolling
    - (d) None of above

- (4) Body systems adapt over time to the stresses placed on them
- (a) Wolff's Law                      (b) Pascal Law  
(c) Growthus Law                      (d) None of above
- (5) 1<sup>st</sup> Carpometacarpal joint is an example of .....
- (a) Hinge                                  (b) Pivot  
(c) Ball and socket                      (d) Saddle
- (6) Lateral lean and pelvic drop is seen in which type of gait ?
- (a) Tredeburg gait                      (b) Antalgic gait  
(c) Normal gait                          (d) None of above
- (7) Excessive pronation of subtalar joint leads to .....
- (a) Pes cavus                              (b) Pes planus  
(c) Sesamoiditis                          (d) None of above
- (8) Pushing a wall is an example of ..... muscle contraction.
- (a) Isokinetic                              (b) Concentric  
(c) Isometric                              (d) Eccentric
- (9) Find the odd one out.
- (a) Shoulder joint                      (b) Knee joint  
(c) Elbow joint                              (d) Ankle joint
- (10) Muscles of Guy ropes are all except .....
- (a) Sartorius                              (b) Biceps femoris  
(c) Semitendinosus                      (d) Gracilis
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