

Total number of printed pages-10

34(2) EXTH 2.3

2013

## EXERCISE THERAPY

Full Marks : 100

Time : Three hours

*The figures in the margin indicate full marks  
for the questions.*

- I. *Essay Type : (any two out of three) 10×2=20*
- (1) Define Aerobic Exercise. Explain the various physiological responses that are associated with aerobic exercises.
  - (2) Essay on Maitland Mobilisation
  - (3) Explain PNF. Detail out the various techniques used.
- II. *Short Essay Type : (any ten out of Twelve) 5×10=50*
- (1) Differences between 2 point gait and 4 point gait.

*Contd.*

- (13)
- (2) MMT of Gastrocnemius muscles.
  - (3) Explain 2 massage techniques used to reduce swelling.
  - (4) Discuss the principles of Goniometry.
  - (5) Explain the properties of water used for therapeutical purpose.
  - (6) Differences between Individual and Group exercises.
  - (7) Mention the various principles of Asanas.
  - (8) Define Posture. Differentiate between Active and Inactive posture.
  - (9) Explain various coordination exercise.
  - (10) Mention various principles of suspension therapy.
  - (11) Explain the indications and contraindications of Manual Muscle Testing.
  - (12) What is active movements? Mention its types.

(14)

III. Short Answer Type : (any five out of seven)  
2×5=10

- (1) Break Test
- (2) Measurement of Limb Lengths
- (3) Explain isotonic exercise regims
- (4) Explain Jacobson's relaxation technique
- (5) Types of Isometric Exercise
- (6) Detail out the tissue response to stretching
- (7) Explain self stretching of SCM.

IV. MCQ :

1×20=20

- (1) 'Puraka' is a type of —
  - (a) Stretching
  - (b) Asana
  - (c) Mobilisation
  - (d) Pranayam.

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(2) Muscle setting exercise is a type of —

- (a) Isotonic exercise
- (b) Isometric exercise
- (c) Eccentric exercise
- (d) None of the above.

(3)  $\dot{V}O_2$  can be determined mathematically as —

- (a)  $\dot{V}O_2 = Q \times a + \bar{v}O_2$
- (b)  $\dot{V}O_2 = Q \div a + \bar{v}O_2$
- (c)  $\dot{V}O_2 = Q \times a - \bar{v}O_2$
- (d)  $\dot{V}O_2 = Q + a - \bar{v}O_2$

(4) Which of the following manoeuvre is used only above ligament and myofascial junctions ?

- (a) circular friction massage
- (b) effleurage massage
- (c) vibration massage
- (d) picking up.

(5) All of the following are lateral rotators of Hip except —

- (a) Obturator internus
- (b) Gemellus superior
- (c) TFL
- (d) Piriformis.

(6) Specified width of the mat for mat exercise is

- (a) 1800 × 1740 cm
- (b) 900 × 700 cm
- (c) 1200 × 1400 cm
- (d) No such specification given.

(7) Berg Balance Scale has a maximum score of —

- (a) 54
- (b) 55
- (c) 56
- (d) 57

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- (8) Small amplitude movement performed with resistance is known as —
  - (a) Grade I maitland
  - (b) Grade II maitland
  - (c) Grade III maitland
  - (d) Grade IV maitland
  
- (9) To reeducate a Grade II muscle, patient is started with —
  - (a) Active resisted exercise
  - (b) Free exercise
  - (c) Active assisted exercise
  - (d) None
  
- (10) Right Leg amputated person, is always taught —
  - (a) 3 point crutch gait
  - (b) 2 point crutch gait
  - (c) 4 point crutch gait
  - (d) Any of the above

- (11) Tendency to assume a new and greater length after passive stretch is known as —
  - (a) Elasticity
  - (b) Plasticity
  - (c) Both
  - (d) None
  
- (12) Contraindication of stretching are all except —
  - (a) Newly healed fracture
  - (b) Tight tissues
  - (c) Weak muscles
  - (d) Osteoporotic patients
  
- (13) Deconditioning effects associated with Bed Rest are all except —
  - (a) Decrease total blood volume
  - (b) Increase Plasma volume
  - (c) Decrease heart volume
  - (d) Increase exercise intolerance

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(14) Closed chain exercises are where —

- (a) Movement of body segments are only distal to moving joint
- (b) Performed in nonweight bearing positions
- (c) Performed in weight bearing positions
- (d) Resistance is applied to the moving distal segment

(15) DOMS symptoms involves all except—

- (a) Local oedema and warmth
- (b) Muscle soreness decreases with passive stretching of the involved muscles
- (c) Tenderness on palpation
- (d) Decrease ROM during muscle soreness

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(16) Glenohumeral anterior glide increases —

- (a) internal rotation ROM
- (b) extension ROM
- (c) external rotation ROM
- (d) flexion ROM

(17) Swayback posture is also known as —

- (a) Lordotic Posture
- (b) Scoliotic Posture
- (c) Slouched Posture
- (d) Kyphotic Posture

(18) Contraindications of mobilisation are all except —

- (a) Tumors within the joint
- (b) Stiffness within the joint
- (c) Fracture within the joint
- (d) Bleeding within the joint

(21)

(19) Which of the following is an irreversible contracture ?

- (a) Myogenic contracture
- (b) Pseudomyostatic contracture
- (c) Arthrogenic contracture
- (d) Fibrotic contracture

(20) The concept of PRE was introduced by —

- (a) De Lorne
- (b) Mac Queen
- (c) Oxford
- (d) Dapree