Total No. of printed Pages = 04

34(2)EXTH2.3

2015

PAPER : 2.3

EXERCISE THERAPY

Full Marks: 100

Time: 3 Hours

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

1. Essay type questions : (any 2 out of 3) 2×10=20
   a) Define Aerobic exercise. What are the various physiological response to aerobic training. Mention about the different types of Aerobic training.
   b) Define PNF. Explain the neurophysiologic principles of PNF. Elaborate hold & relax techniques of PNF.
   c) What is stretching? Explain the mechanical properties of contractile tissues. Mention the precaution & contraindication.
2. Short essay type (any 10 out of 12) : 10×5=50
   a) Physiology of balance.
   b) Schools of thought of manual therapy.
   c) Explain the hydrotherapy pool.
   d) Define massage. Explain the classification of massage.
   e) Define suspension therapy. Explain the types of suspension therapy.
   f) Isotonic exercise regimens.
   g) Define the principles of relaxation techniques. Mention the various relaxation technique methods.
   h) PFT
   i) Lower limb measurement techniques.
   j) Schober's method of ROM measurement for lumbar & thoracic spine.
   k) Principles of MMT. Explain MMT of Hamstring.
   l) Anthropometric measurements.

P.T.O.

3. Short answer type (any 5 out of 7) : 5×2=10
   a) Principles of Asanas.
   b) Active and inactive posture.
   c) Various mat activity from supine to standing.
   d) Self stretching of SCM
   e) Free exercise: techniques, indications and contraindication.
   f) Various coordination test.
   g) Explain open chain and closed chain exercise.
4. Multiple choice questions. 20×1=20
   a) Which of the following properties of water helps a patent with lower extremity muscle weakness to stand inside hydrotherapy pools, which otherwise cannot stand?
      i) Buoyancy
      ii) Hydrostatic pressure.
      iii) Temperature of water.
      iv) Specific gravity.
   b) The benefits of correct therapists position is-
      i) Stress on therapist's back is reduced.
      ii) Little energy expenditure as body weight is used.
      iii) Direction, pressure and rhythm of movements are easily controlled.
      iv) All of the above.
   c) 40 lifts, 3 times weekly with 10 k.m. progression every 1-2 weeks is seen in which PRE.
      i) Linonieffs
      ii) Daprces
      iii) Mac Queens
      iv) De lorme's
   d) Movement in pendular suspension takes place in-
      i) Horizontal plane
      ii) Inclined plane
      iii) Sagital plane.
      iv) Frontal plane.
   e) End feel of ___ is bony.
      i) Knee flexion. ii) Elbow extension.
      iii) Ankle dorsiflexion iv) Forearm supination.

   f) Most appropriate use of RPM is-
      i) Muscle strengthening.
      ii) Improving JROM.
      iii) Remembrance of pattern of movement.
      iv) Improving coordination.
   g) To test for grade 5, check the maximum resistance on the sound side and then apply ___ on the involved side and compare the both.
      i) Minimum resistance
      ii) Same resistance
      iii) Maximum possible resistance, which one can overcome.
      iv) None of the above
   h) The principle of Frenkels exercises is-
      i) Precision.
      ii) Attention.
      iii) Repetition.
      iv) All of the above.
   i) Respiratory excursion is highest in-
      i) Supine lying ii) Lifting
      iii) Standing iv) Kneel standing
   j) All is true about relaxation except.
      i) Consciousness of breathing is taught.
      ii) Good support to the part is given.
      iii) Restful atmosphere is needed.
      iv) Patients concentration is diverted from treatment area.
   k) Good posture
      i) Saves energy
      ii) Looks aesthetically good.
      iii) Prevents musculoskeletal complication
      iv) All of the above.
   l) Rapid forceful intermittent stretch of high speeds intensity is known as-
      i) Self stretching.
      ii) Ballistic stretching.
      iii) Passive stretching.
      iv) Intermittent stretching.

m) The effects of deep transverse friction massage includes-
   i) It disperses the exudates and relieves pain–
   ii) Prevents/break adhesion
   iii) Induces local erythema
   iv) All of the above

n) In single leg standing hipjoint is subjected to load equal to-
   i) $^{1}/_{3}^{rd}$ of body weight ii) body weight
   iii) 2 times body weight iv) 3 times body weight

o) Foreman support crutches is also known as.
   i) Axillary crutch.
   ii) Elbow crutch.
   iii) Gutter crutch.
   iv) Elbow crutch.

p) Kaltenborn has described ___ grades.
   i) 4 ii) 3
   iii) 5 iv) none

q) Available degree of movement is a joint can be assessed using-
   i) Isokinetic devices ii) Goniometer
   iii) Inch tape iv) Knee hammer

r) For group therapy, maximum no of patients in group is about-
   i) 4-6 ii) 6-8
   iii) 8-10 iv) More than 10

s) PNF was developed by-
   i) Kabat & knott.
   ii) Knot & Voss.
   iii) Car & Shepherd.
   iv) Dardnier and Hollis.

t) Glenohumeral slide can improve-
   i) Extension range.
   ii) Flexion range.
   iii) Extension and external rotation range.
   iv) Flexion & Internal rotation.

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