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Total No. of printed Pages = 04

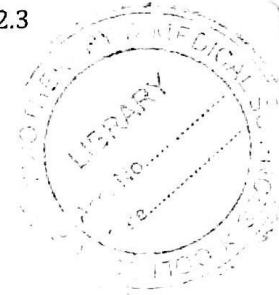
34(2)EXTH2.3

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.

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(2)

3. Short answer type (any 5 out of 7) :
- 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.
- a) Which of the following properties of water helps a patient 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.

5×2=10

20×1=20

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(3)

- 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.

(4)

- 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) $\frac{1}{3}$ 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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