

Total number of printed pages-9

34 (2) EXTH 2.3

2016

**EXERCISE THERAPY**

Full Marks : 100

Time : Three hours

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

- I. Essay type questions : **(any two out of three)**  
2×10=20
1. Define contracture and its types. What are the various methods to increase soft tissue mobility? Explain *any two* in detail.
  2. Define relaxation. Explain the principles, uses and technique of *any two* relaxation methods.
  3. Classify massage. Mention the physiological and therapeutical uses of each technique.

Contd.

II. Short Essay Type : **(any ten out of twelve)**  
5×10=50

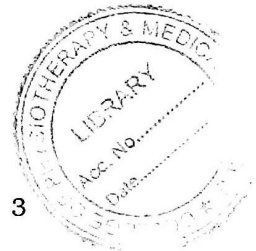
1. Anthropometric measurements
2. PRE regimens
3. Explain the postural strategies.
4. Write about the principles, and benefits of Axial suspension therapy.
5. List out the Fundamental Starting positions with their benefits.
6. Isometric regimens.
7. Principles of axillary crutches.
8. Advantages and disadvantages of Mechanical Resistance Exercises.
9. Explain the various tests for coordination.
10. Principles of Goniometry.
11. Detail out the principles of Asanas. Mention *any three* asanas with their benefits.
12. Procedure for grading the Rhomboid muscle.

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

1. What is Accommodating resistance exercise ?
2. Gutter Crutches.
3. Stretching of iliopsoas.
4. Break Test.
5. Cardiovascular response to exercise.
6. Differences between group and mass exercises.
7. Motor unit.

III. Multiple Choice Question : 1×20=20

1. 'The area in the muscle fibre where when polarized light is passed, the light rays are refracted to different directions' is known as
  - (a) I band
  - (b) A band
  - (c) H-zone
  - (d) Z-disc



2. All is true about the determinants of exercise program except —

- (a) Intensity should be 70% of max HR
- (b) Duration of exercise should be 20-30 min at 60-70% MHR
- (c) Work : Recovery = 1 : 1 or 1 : 5
- (d) Frequency should be 3-4 times/day and not depending on age.

3. Maitland has given \_\_\_\_\_ grades.

- (a) 5
- (b) 4
- (c) 3
- (d) 2

4. Hand to knee gait is due to weakness of

- (a) Iliopsoas
- (b) Hamstring
- (c) Quadriceps
- (d) Tibialis Anterior

5. The principle of Frenkel's coordination exercise is/are —

- (a) Precision
- (b) Attention
- (c) Repetition
- (d) All of the above

6. A pillow is placed under the abdomen in prone lying position for the massage of the back to —

- (a) Flatten the back
- (b) Raise the pelvic to facilitate drainage
- (c) Relieve pressure over the breasts in case of female
- (d) All of the above

7. Running is characterised by —

- (a) Cadence more than 130/min
- (b) Absence of double support phase
- (c) Increase in floating period
- (d) All of the above

8. In DAPRE the base repetition maximum is

- (a) 10 RM
- (b) 6 RM
- (c) 1 RM
- (d) 3 RM

9. Resisted Exercise helps to

- (a) Increase Power
- (b) Increase Endurance
- (c) Increase Volume
- (d) All of the above

10. Universal Goniometer was developed by—

- (a) Fox
- (b) Moore
- (c) Schenkar
- (d) Karpovich

11. Which of the following is not true—

- (a) 4-point gait is slow and stable gait
- (b) Weight is borne on both L/L
- (c) Progression from swing to swing through is present
- (d) 4-point gait is a type of non weight bearing gait

12. Duration of mechanical stretching is for at least

- (a) 60 sec
- (b) 2 min
- (c) 15-30 min
- (d) none of the above

13. RM indicates—

- (a) Max weight that can be lifted only once through a prescribed range
- (b) Greatest amount of weight a muscle can move through available ROM, a specific nos. of time
- (c) Max weight that can be lifted 10 times at natural speed without rest between the lifts
- (d) None of the above

14. Movement in pendular suspension takes place in —  
(a) Horizontal plane  
(b) Inclined plane  
(c) Sagittale plane  
(d) Frontal plane
15. Centre of buoyancy in normal standing posture inside water lies in  
(a) S<sub>2</sub>  
(b) Sternum  
(c) Axilla  
(d) T<sub>2</sub>
16. Thomas' Test is done to test —  
(a) Hip extensor tightness  
(b) Hip flexor tightness  
(c) Hip abductor tightness  
(d) Hip rotator tightness
17. 'Cooling Down' following exercise helps  
(a) Cooling Down fainting by increasing blood return to heart and brain  
(b) Cooling Up pooling of blood to L/L  
(c) Cooling Down recovery  
(d) Causes myocardial ischemia

18. Nodding of the head is an example of—  
(a) 1st order lever  
(b) 2nd order lever  
(c) 3rd order lever  
(d) 4th order lever
19. Stretching should not be done more than—  
(a) 2-5 times/week  
(b) 1-2 times/session  
(c) 60 sec/stretch  
(d) All of the above
20. Frenkel's Exercise progression can be made by increasing  
(a) Speed  
(b) Range  
(c) Complexity  
(d) All of the above.