

Total number of printed pages-9

34 (2) EXTH 2.3

2021
(Held in 2022)

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)***
10×2=20
 1. Define Goniometer. Write down its principle, types, uses and limitation. Describe the elbow joint goniometric measurement.
 2. Define aerobic exercise. Write down the physiological response to aerobic exercise. List down the determinants of an exercise program.

Contd.

3. Define stretching. Write down the various techniques of stretching. Explain its precaution and contraindication.

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

1. Explain free exercise of knee joint.
2. Write down the physiological effects of massage.
3. Explain all the *five* fundamental position.
4. Describe the measurement techniques for auxiliary crutch.
5. Write a note on the value of group exercise.
6. Describe the different sensory test.
7. What is incoordination? Explain equilibrium and non-equilibrium tests.
8. What is open chain and close chain of dynamic exercise? Explain the principles of resisted exercise.

9. Write a short note on balance.

10. Define PNF. Write down the principle of PNF.

11. Write a short note on hydrotherapy.

12. Define suspension therapy. Write down its types and uses.

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

1. Define power, endurance and speed.

2. Explain the measurement of limb length.

3. What are the orders or classes of lever?

4. Explain the indication and contraindication of mobilization.

5. Explain the grades of MMT.

6. Write down Maitland's grade of mobilization.

7. Define Yoga and Asanas.

IV. Multiple Choice Questions : 1×20=20

1. Purpose of mobility is the following excluding
 - (a) prevention of disease atrophy
 - (b) prevention of contractures
 - (c) prevention of pressure sores
 - (d) prevention of hypertension
2. Rehabilitation is the phase of medical care immediately after
 - (a) preventive phase
 - (b) acute phase
 - (c) curative phase
 - (d) surgical phase
3. Following are the methods to reduce spasticity except
 - (a) application of crushed or shaved ice
 - (b) apply reflex inhibiting postures
 - (c) joint compression
 - (d) giving various stimuli to stimulate sensory cortex

4. If the quadriceps leg is present, what is the power of the knee extensors ?
 - (a) 1
 - (b) 2
 - (c) > 2 and < 3
 - (d) 3
5. Types of percussion include the following except
 - (a) hacking
 - (b) petrissage
 - (c) tapping
 - (d) cupping
6. Patellofemoral inferior glide increases the
 - (a) knee extension ROM
 - (b) knee flexion ROM
 - (c) ankle dorsiflexion
 - (d) None of the above
7. For the dorsiflexion of ankle joint the axis of goniometer is on
 - (a) lateral epicondyle
 - (b) lateral malleolus
 - (c) medial malleolus
 - (d) medial epicondyle

8. Shadow walking is a type of

- (a) Normal gait
- (b) NWB gait
- (c) ZWB gait
- (d) PWB gait

9. The principle of Frenkel exercise

- (a) concentration
- (b) precision
- (c) repetition
- (d) All of the above

10. What do you mean by plastic region ?

- (a) The point on the stress axis where fatigue occurs.
- (b) Region where material will deform proportional to load and maintain the deformation.
- (c) The point where the material will return back to its original position when load is removed.
- (d) None of the above.

11. Push-up is an example of :

- (a) closed kinematic chain
- (b) active free weight-bearing exercise
- (c) resisted exercise
- (d) open kinematic chain

12. Fixators

- (a) muscle which works to steady the origin of the prime movers
- (b) muscle which bring about the movement by their contraction
- (c) muscle which are opposing group2
- (d) All of the above

13. Which of the following is the techniques of assisted exercise ?

- (a) Traction and support.
- (b) Starting position, pattern of movement and fixation.
- (c) Repetitions and assisting force.
- (d) All of the above.

14. If balance is the rehabilitation goal which exercise programme is preferred
- (a) weight machine
 - (b) free machine
 - (c) traction
 - (d) pulley or cam machine
15. Choose the correct progression of ambulation by a pair of axillary crutches.
- (a) 2 point, 3 point, 4 point
 - (b) 4 point, 3 point, 2 point
 - (c) 3 point, 4 point, 2 point
 - (d) 2 point, 4 point, 3 point
16. While walking with unilateral stick it should be placed in the
- (a) same side of the affected limb
 - (b) opposite side of the affected limb
 - (c) in any of the side
 - (d) None of the above
17. Heat-transfers increases with
- (a) intensity
 - (b) cold
 - (c) rest
 - (d) velocity

18. _____ joint has got one degree of freedom.
- (a) Ankle
 - (b) Elbow
 - (c) Interphalangeal
 - (d) All of the above
19. In Dapre the base repetition maximum is _____.
- (a) 10RM
 - (b) 1RM
 - (c) 6RM
 - (d) 3RM
20. For thoracic and lumbar rotation the fulcrum placement
- (a) center of the cranial aspect of head
 - (b) spinous process of tin
 - (c) spinous process of L₅
 - (d) subjects acromion process