1. The muscle which laterally rotates the femur is the:

   a. rectus femoris muscle.
   b. semimembranosus muscle.
   c. sartorius muscle.
   d. vastus medialis muscle.

2. An anatomical term that refers to the outer wall of the body cavity is:

   a. proximal.
   b. distal.
   c. superficial.
   d. parietal.

3. The muscle that originates closest to the pubis is the:

   a. adductor longus.
   b. pectineus.
   c. iliopsoas.
   d. vastus medialis.

4. The superior articular facets of the atlas articulate with the:

   a. occipital condyles.
   b. mastoid processes of the temporal bone.
   c. dens of the axis.
   d. inferior articular facets of the axis.

5. The only head of the quadriceps muscle group that crosses the hip joint is:

   a. vastus intermedius.
   b. vastus medialis.
   c. vastus lateralis.
   d. rectus femoris.

6. The popliteal artery:

   a. trifurcates into the peroneal, anterior tibial and posterior tibial arteries.
   b. is the direct continuation of the external iliac artery.
   c. accompanies the femoral artery.
   d. returns blood from the leg to the thigh.
7. In most instances, this nerve lies beneath the piriformis muscle, but variations are known to occur:

a. femoral nerve.
b. obturator nerve.
c. sciatic nerve.
d. iliohypogastric nerve.

8. The primary flexor of the elbow is the:

a. brachialis.
b. triceps.
c. brachioradialis.
d. flexor carpi radialis.

9. The bone that articulates with the tibia and fibula is the:

a. talus.
b. calcaneus.
c. lateral cuneiform.
d. navicular.

10. The structure that travels through the bicipital groove of the humerus is the:

a. tendon of the long head of the triceps.
b. tendon of the coracobrachialis.
c. the axillary nerve.
d. tendon of the long head of the biceps brachii.

11. The seventh cranial nerve is the:

a. trigeminal nerve.
b. facial nerve.
c. abducens nerve.
d. oculomotor nerve.

12. After a traumatic complete spinal cord transection, all but one of the following is true:

a. spinal shock occurs
b. negative Babinski
c. after a while deep tendon reflexes return to normal
d. is a completely severed spinal cord
13. The apex of a scoliotic curve is described as:
   a. the larger curve of an s-curve scoliosis
   b. the vertebrae that is farthest from the midline
   c. the neural vertebrae between the curves
   d. the convexity of the side the curve bends away from

14. Shoulder extension is primarily controlled by all but one of the following:
   a. latissimus dorsi
   b. posterior deltoid
   c. teres major
   d. supraspinatus

15. When grading muscle strength, a POOR indicates:
   a. muscle contracts against gravity and mild resistance
   b. no response at all
   c. muscle contracts only if gravity is eliminated
   d. flicker of response only; the muscle is felt to tighten, but no response occurs

16. If a client invites a therapist out to dinner, the therapist should:
   a. accept the invitation
   b. avoid saying no to the client by saying you’re busy with another engagement
   c. explain to the client that it would be inappropriate to develop a personal relationship with the client in addition to maintaining the therapist-client relationship
   d. accept the invitation with the intention of cancelling the dinner date at the last minute

17. A massage therapist should use limited self-disclosure when:
   a. meeting a new client.
   b. the information shared assists in the client's progress.
   c. an awkward silence creates tension.
   d. the therapist wants to feel more connected to and intimate with a client.

18. A therapist should treat all clients with regard to any of the following factors EXCEPT:
   a. sexual orientation
   b. race, nationality or ethnic origin
   c. contraindicated medical conditions
   d. gender and age
19. The one condition of the following that does not contraindicate stretching techniques is:

a. hypermobility.
   b. myostatic contracture.
   c. joint effusion.
   d. inflammation.

20. An indication for a wrap that produces body heat is:

a. circulatory training  
b. local inflammatory conditions  
c. varicose veins  
d. bursitis

21. The term used to name the axis of involvement in sacral torsions is:

a. transverse.  
b. counter nutation.  
c. nutation.  
d. oblique.

22. The single most important infection control practice is:

a. care of equipment.  
b. hand washing.  
c. disposal of waste.  
d. protective barriers.

23. With hammer toes all of these statements are true EXCEPT:

a. Extension contracture at the metatarsophalangeal joint  
b. Flexion contracture at the proximal interphalangeal joint  
c. Flexion contracture at the distal interphalangeal joint  
d. Distal interphalangeal joint may be flexed, straight, or hyperextended

24. Lack of tone of the colon with feces being hard and lumpy, is the definition for which type of constipation?

a. spastic  
b. obstructive  
c. atonic  
d. diarrhea
25. Massage treatment of a client who had a cast removed 4 days ago would include which of the following techniques?

a. Light tapotement
b. Lymph drainage only
c. Deep alternate thumb kneading over the fracture site
d. Muscle stripping

26. The client is supine. Flex the leg and place the foot on table. Grasp behind the flexed knee and exert push-pulling pressure on the lower leg. This is referred to as:

a. Apley's distraction test.
b. Adduction stress test.
c. Drawer sign.
d. Ober's test.

27. A condition which presents itself with fibrosis and structural shortening of one sternocleidomastoid in utero or during infancy is:

a. acquired torticollis.
b. congenital torticollis.
c. spasm.
d. contracture.

28. Any condition that renders a particular treatment improper or undesirable is a:

a. pathology.
b. contradiction.
c. disease.
d. contraindication.

29. The tapotement technique best suited for dislodging mucous in chronic respiratory congestion is:

a. ulnar percussion.
b. cupping.
c. clapping.
d. pincement.

30. In order to treat a muscle correctly with muscle stripping the therapist must know the:

a. origin and insertion of the muscle.
b. fibre direction of the muscle.
c. location of muscle belly.
d. all of the above.
31. Which of the following is true in an ankle sprain?

a. the deltoid ligament is the most frequently damaged  
b. the anterior talofibular is the least frequently damaged  
c. a forceful eversion stress will most often cause an avulsion of the tibial malleolus  
d. an inversion sprain is rare

32. All of the following are considered petrissage techniques except:

a. muscle wringing.  
b. skin rolling.  
c. picking up.  
d. fine vibrations.

33. When performing cross fibre frictions, the muscle being treated should be:

a. in a relaxed, neutral position.  
b. in maximum extension.  
c. fully contracted.  
d. lubricated.

34. The proximal to distal to proximal massage principle is employed to:

a. prevent deeper pressure techniques from being painful.  
b. promote venous return.  
c. prevent excess scar tissue.  
d. prevent kickback pain.

35. When performing massage for a Sciatic nerve lesion:

a. Client should be placed prone without pillows in order to traction the nerve  
b. Treatment should be slow and deep to decrease contracture  
c. Include ROM into treatment to prevent contracture  
d. Passive stretches should be used in the acute stage to lengthen contracted muscles

36. The intent of applying muscle stripping is to:

a. elongate the muscle.  
b. disrupt adhesions.  
c. search the tissue.  
d. all of the above.
37. Vertebrobasilar insufficiency is a contraindication because the elevated mastoid process can dangerously occlude the vascular artery when the stretch for:

a. SCM sternal division rotates face to the affected side.
b. SCM clavicular division rotates face to the affected side.
c. SCM sternal division rotates face away from the affected side.
d. SCM clavicular division rotates face away from the affected side.

38. Parkinson’s may present with all but one of these common signs and symptoms:

a. rigidity
b. intention tremor
c. poor balance
d. difficulty in stopping movement

39. Hemiplegia:

a. is spastic paralysis of one half of the body resulting from a spinal cord lesion
b. has paralysis on the opposite side to that of the lesion
c. is a sensory dysfunction and progressive
d. usually affects the arm, legs, and trunk

40. Bone trauma at an early age may be serious because:

a. young bones heal weakly.
b. the growth plate could be damaged.
c. children's bones are brittle.
d. blood disorders could develop.

41. All but one of these is the typical joint orientation for a hemiplegic:

a. shoulder girdle - depressed
b. wrist - flexed
c. fingers - flexed and adducted
d. elbow - flexed and supinated

42. Common lesion sites that result in hemiplegia are all but one of the following:

a. motor cortex.
b. pyramidal tract.
c. dorsal column.
d. extra pyramidal tract.
43. The loss of function in Erb’s Palsy is:

a. shoulder adduction and internal rotation
b. shoulder adduction and external rotation
**c. shoulder abduction and external rotation**
d. shoulder abduction and internal rotation

44. Which structure of the brain is responsible for balance and motor coordination?

a. Thalamus
b. Pons
**c. Cerebellum**
d. Medulla oblongata

45. Which of the following is not a type of sweat gland?

a. Mammary gland
b. Eccrine gland
**c. Apocrine gland**
d. Ceruminous gland

46. The white blood cells that are important in producing antibodies are the:

a. lymphocytes.
b. eosinophils.
c. basophils.
d. monocytes.

47. The part of the brain that functions in emotional aspects of behaviour related to survival is the:

a. limbic system.
b. cerebellum.
c. thalamus.
d. pons.

48. The part of the brain which regulates the balance of the autonomic nervous system is the:

a. hypothalamus.
b. medulla.
c. pineal gland.
d. pons.
49. The most important factors that determine the speed of impulse conduction are:

a. strength of stimulus and sodium ion levels present.
b. level of spinal cord and the nerves proximity to the brain.
c. number of dendrites and the amount of myelin.
d. the diameter of the axon and the presence of myelin.

50. The release of neurotransmitters at the synapse requires:

a. the influx of sodium.
b. the influx of potassium.
c. the influx of calcium.
d. none of the above.