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MCQs in Sports Physiotherapy

with Explanatory Answers





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SECOND EDITION

Forewords
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CHAPTER 2

Emergency Sports Assessment and First Aid

1. **A therapist examines a patient diagnosed with an Achilles tendon injury. Which clinical finding is not indicative of a ruptured Achilles tendon?**
   - **A.** Negative Thompson test
   - **B.** Absent Achilles reflex
   - **C.** Lack of toe off during gait
   - **D.** A palpable defect in the musculotendinous units
2. **A sports physiotherapist designs an exercise program for an athlete recovering from a lower extremity injury. A single most important factor in an exercise program designed to increase muscle strength is:**
   - **A.** The recovery time between exercise sets
   - **B.** The number of repetitions per set
   - **C.** The duration of exercise session
   - **D.** The intensity of the exercise
3. **During shock, the optimal position for which the athlete to be placed is:**
   - **A.** Reclining with the feet at the same level of head
   - **B.** Reclining with the feet higher than the head
   - **C.** Head down position with feet straight
   - **D.** Semi-recumbent position
4. **Following are the indicators of blunt abdominal injury, *except:***
   - **A.** Absence of superficial abdominal reflex
   - **B.** Absence of normal bowel sounds
   - **C.** Falling BP, increasing pulse rate
   - **D.** Referred pain to shoulder tip or back
5. **A therapist completes a sensory examination on a patient diagnosed with an incomplete spinal cord injury to assess the C_5 dermatome; the therapist should utilize the:**

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A. Neck

B. Deltoid area of the lateral arm

C. Thumb and index finger

D. Superior portion of the chest above the axilla

6. A physical therapist instructs a female athlete to complete ten minutes of stretching before beginning her treadmill program. While observing the athlete stretching her hamstrings, he notices repetitive bouncing and a failure to maintain the stretch for more than 5 seconds. Why is this type of stretching considered to be inadequate?

A. The athlete should maintain each stretch for at least 30 seconds.

B. The athlete should stretch only after running on the treadmill.

C. The athlete is activating the stretch reflex.

D. The athlete should remain activity specific.

7. A physical therapist examines a patient diagnosed with an acute posterior cruciate sprain. The mechanism of injury for the posterior cruciate ligament is:

A. A forceful landing on the anterior tibia with the knee hyper-flexed.

B. An anteriorly directed force applied to the tibia when the foot is fixed.

C. A valgus force applied to the knee when the foot is fixed.

D. Hyperextension, medial rotation of leg with lateral rotation of body.

8. A sports physiotherapist examines joint play movement by placing the joint in its resting position. This position is best described as:

A. Maximum congruency between the articular surfaces and the joint capsule

B. Minimum congruency between the articular surfaces and joint capsule

C. Passive separation of the joint surface is limited.

D. Parallel to the joint treatment plane

9. The motor examination reveals weakness of calf and hamstrings along with wasting of gluteals, peroneals and

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plantar flexors. The corresponding myotome should be recorded as:

A. L2 **B.** L3

C. S1 **D.** S2

10. A physiotherapist observes a video on the biomechanics of normal gait. The therapist notes that the subject's knee remain flexed during all of the components of stance phase, *except:*

A. Foot flat **B.** Heel strike

C. Midstance **D.** Toe off

11. The clinical presentation of transient upper extremity dysesthesia, pain and weakness following an unilateral or contralateral shoulder blow which may be associated with cervical spinal extension, lateral flexion or both resulted in:

A. Burner's syndrome **B.** Shoulder hand syndrome

C. Burning hand syndrome **D.** Pinched nerve syndrome

12. A 16-year-old high school track participant returns to physical therapy after a physician's appointment. The patient indicates that MRI revealed a tear in medical meniscus of left knee. As you look back on the initial examination, which of the following special tests would you expect to have been positive?

A. Lachman **B.** Pivot shift

C. McMurray **D.** Apprehension

13. A therapist places a patient's hip in the resting position prior to assessing joint play. Which of the following would be considered as the resting position of the hip?

A. 10° flexion, 15° abduction, slight medial rotation

B. 30° flexion, 30° abduction, slight lateral rotation

C. 30° flexion, 30° adduction, 20° lateral rotation

D. 10° extension, 20° adduction, 20° medial rotation

14. A therapist instructs a patient to close her eyes and hold out her hand. The therapist places a series of different weights in the patient's hand one at a time. The patient is then asked to identify the comparative weight of the objects. This method of sensory testing is used to examine:

A. Barognosis **B.** Graphesthesia

C. Recognition of texture **D.** Stereognosis

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15. The method used by the athletic trainer to remove an inhaled foreign object in the upper airway of an athlete during athletic participation is called?

A. Upper chest inhibition technique
B. Delivering a series of rapid thrusts to the upper abdomen
C. Delivering a series of 4 or 5 short blows to the spine between scapulae
D. Lower chest inhibition technique

16. A patient is performing exercises on a treadmill, while exercising the patient report his level of perceived exertion as 7 on Borg's ten-point scale. Which word best describe the patient's rate of perceived exertion?

A. Weak **B.** Moderate
C. Strong **D.** Very strong

17. A patient positioned in supine on a mat table is instructed to flex her right hip and knee to her chest and hold it. This evaluation technique can be used to assess the length of:

A. Hamstrings on the left **B.** Hamstrings on the right
C. Hip flexors on the right **D.** Hip flexors on the left

18. A physical therapist examines a patient's hip range of motion. Which pattern of limitation is typically considered to be a capsular pattern?

A. Limitation of flexion, abduction and medial rotation
B. Limitation of flexion, adduction and lateral rotation
C. Limitation of extension, abduction and lateral rotation
D. Limitation of extension, adduction and medial rotation

19. The normal flexion range of motion available at atlanto-occipital joint of cervical spine is:

A. 10° **B.** 15°
C. 20° **D.** 5°

20. Sacroiliac joint pathology is confirmed by which of the following special tests?

A. Slump test **B.** Faber's test
C. Tripod test **D.** Craig's test

21. Following tests are the components of functional strength tests, *except:*

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A. Bench press **B.** Push-ups
C. Harvard step test **D.** Sit-ups

22. For a head injury patient, the term ' Neural watch' is related to:
A. Monitoring of patient's vital sign
B. Monitoring of patient's unconscious level
C. Verbal reaction to pain
D. Monitoring of motor function

23. An anaphylactic shock occurs due to which one of the following?
A. Blood loss
B. Insufficient pumping of blood by heart
C. Allergic reaction
D. Loss of body fluid

24. The most appropriate standardized instrument to measure the level of consciousness is:
A. Glasgow coma scale **B.** Rankin scale
C. Barthel index **D.** Sickness impact profile

25. Following are the components of athletic conditioning program, *except:*
A. Strength **B.** Power
C. Proprioception **D.** Nutrition

26. Approximately at 6 hours after head injury, the Glasgow coma scale score of range 9 to 11 indicates which one of the following?
A. Normal **B.** Mild head injury
C. Moderate head injury **D.** Severe head injury

27. A therapist practices assessing joint end feel. The therapist would move accurately classify normal elbow extension end feel as:
A. Firm **B.** Hard
C. Soft **D.** Empty

28. The closed pack position of metacarpophalangeal joint (fingers) is:
A. Full extension **B.** Full flexion
C. Full abduction **D.** Full opposition

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29. While examining a patient diagnosed with Achilles tendonitis, a therapist notes that the foot appears to be pronated in standing. Which motion combine to create pronation?

A. Abduction, dorsiflexion, eversion

B. Adduction, dorsiflexion, inversion

C. Adduction, plantar flexion, eversion

D. Adduction, plantar flexion, inversion

30. The chemical which is most commonly (and currently) being used in cold spray therapy technique during athletic rehabilitation is:

A. Fluoromethane **B.** Ethyl chloride

C. Xylocaine **D.** Hydrocortisone

31. The ratio of chest compression to breaths during two-man cardiopulmonary resuscitation is:

A. 5:1 **B.** 10:1

C. 14:1 **D.** 14: 2

32. During a soccer game, a player sustains an injury to his right knee joint and cannot continue the game. The physical therapist completes a series of special tests designed to examine the ligamentous integrity of a player's knee. After completing the tests, the therapist is unsure if the laxity is normal or indicative of a ligamentous injury. The most appropriate step to gather more information is to:

A. Attempt to quantify the millimeters of laxity and compare the values with established norms

B. Contact the physician and suggest a referral for magnetic resonance imaging

C. Directly compare the laxity in the involved knee to the laxity in the uninvolved knee

D. Attempt to identify other special tests that can offer more information on the ligamentous integrity of the knee

33. A physical therapist attempts to place an athlete's hip in the resting position before assessing joint play. Which position would be most consistent with the therapist's objective?

A. 10° flexion, 15° abduction, slight medial rotation

B. 30° flexion, 30° adduction, 20° lateral rotation

C. 30° flexion, 30° abduction, slight lateral rotation

D. 10° extension, 20° adduction, 20° medial rotation

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34. A physical therapist completes a manual muscle test on a hockey player who sustained a laceration in the anterior surface of the forearm. When performing a test on the flexor pollicis brevis, the therapist should direct the force along:

A. The volar aspect of the proximal phalanx of the thumb
B. The volar aspect of the distal phalanx of the thumb
C. The dorsal aspect of the proximal phalanx of the thumb
D. The dorsal aspect of the distal phalanx of the thumb

35. A physical therapist examines a gymnastic who complains of sacroiliac pain immediately following the event. As part of the on-field examination, the therapist assesses the position of the sacrum by palpating the inferior lateral angles. Which spinal level is most consistent with the inferior lateral angles?

A. S1 **B.** S3
C. S4 **D.** S5

36. A physical therapist performs a manual muscle test on a collegiate sports person to ascertain whether he has any bilateral upper extremity weakness. The therapist should test the player's scapular adductors by positioning him in:

A. Prone **B.** Side lying
C. Standing **D.** Supine

37. During the physical examination, a physical therapist, classifies an athlete's end-feel as soft after completing a specific passive movement. Which of the following joint motions would typically produce a soft end-feel?

A. Hip flexion with the knee extended
B. Knee flexion
C. Elbow extension
D. Forearm supination

38. A 20-year-old female complains of ankle pain while playing volleyball and is suspected of having sprained her ankle. During the examination, she exhibits extreme tenderness to palpation over the sinus tarsi. What ligament is most often associated with tenderness in this case?

A. Anterior talofibular
B. Calcaneofibular
C. Deltoid
D. Posterior talofibular

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39. A physical therapist examines a football player who is suspected of having an acute posterior cruciate ligament sprain. The most common mechanism of injury for the posterior cruciate ligament is:

A. A forceful landing on the anterior tibia with the knee hyperflexed

B. An anteriorly directed force applied to the tibia when the foot is fixed

C. A valgus force applied to the knee when the foot is fixed

D. Hyperextension and medial rotation of the leg with lateral rotation of the body

40. A football player sustained an injury to his knee joint, and the physical therapist attempts to gain information on the ligamentous integrity of the knee. Which of the following special tests would not provide the therapist with the desired information?

A. Anterior drawer test

B. Apprehension test

C. Lachman test

D. Pivot shift test

41. A 34-year-old domestic cricket player, while exercising in the gym, suddenly grasps his throat and begins to cough. The physical therapist, recognizing the signs of airway obstruction, should:

A. Attempt to ventilate

B. Administer abdominal thrusts

C. Perform a quick finger sweep of the mouth

D. Continue to observe the patient, but do not interfere

42. A physical therapist performs rescue breathing on a 22-year weightlifter who collapsed in the physical therapy gym. Which of the following is not accurate when performing rescue breathing on an adult?

A. Maintain open airway with head tilt/chin lift

B. Give one breath every five seconds

C. Pinch nose shut

D. Continue for 30 seconds; approximately six breaths

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43. After observing a 22-year-old collegiate student during an exercise session, a physical therapist concludes that he commonly uses the Valsalva maneuver. Which activity would have the likely probability of producing the Valsalva maneuver?

A. Lifting a 40 lb package from the floor to a counter at waist level

B. Walking at 4 mph on a treadmill

C. Stationary cycling at 80 revolutions per minute

D. Using an upper extremity ergometer at 40 revolutions per minute

44. A 16-year-old school student participates in an athletic event for the first time. Immediately following the event, a physical therapist determines that the student's respiratory rate is 30 breaths per minute during the examination. What is the first intervention the therapist should perform to help the student slow his respiratory rate?

A. Pursed-lip breathing

B. Inspiratory hold

C. Diaphragmatic breathing

D. Active cycle of breathing

45. A 20-year-old female basketball player who sustained an ankle injury and is suspected of having lateral ankle instability. She reports that she landed on another player's foot after coming down with a rebound and felt immediate pain. She presents with moderate to severe ecchymosis and swelling along the lateral ankle distal to the lateral malleolus and is tender to palpation in the same region. Which of the following methods would be the MOST relevant ones to assess the ligamentous stability of the ankle?

A. The therapist applies an anteriorly directed force with the injured player in supine on the proximal tibia with the knee flexed to 30 degrees.

B. The therapist applies a compressive force to the heel with the injured player in prone and rotates the tibia with the knee flexed to 90 degrees.

C. The therapist manually dorsiflexes the ankle with the injured player in sitting with the knee in 90 degrees of flexion.

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D. The therapist stabilizes the tibia and fibula with the injured player in supine with the foot in 20 degrees of plantar flexion while drawing the talus forward in the ankle mortize.

46. The acronym, 'HOPS' format of evaluating sports injuries stands for:

A. History of the injury, observation and inspection, palpation, and special testing

B. History of the injury, observation and identification, palpation, and special testing

C. History of the injury, observation and identification, palpation, and special treatment

D. History of the injury, observation and inspection, pain grading, and special testing

47. Which one of the following evaluation formats provides a more detailed and advanced structure for decision making and problem-solving in injury management?

A. HOPS format

B. SOAP note format

C. Visual analogue scale

D. All of the above

48. A female high school long jumper sustains an ankle injury during practice and immediately reports to the athletic training room. While taking the history, what questions should be asked to identify the cause and extent of this injury?

A. How did that injury happen?

B. Briefly narrate the characteristics of the symptoms.

C. Do you have any related medical history that may have a bearing on the specific injury?

D. All of the above

49. Immediately after the occurrence of injury, the localized injury site should be inspected. Identify the most appropriate reason for carrying out this inspection:

A. To rule out any deformity

B. To rule out swelling

C. To rule out any discoloration in the skin

D. All of the above

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50. Inspection of the long jumper's injury revealed mild swelling on the anterolateral aspect of the ankle. Based on the information provided concerning the long jumper's condition, the sports physiotherapist palpate to determine the extent and severity of the injury. The bilateral palpation of paired anatomic structures around the ankle joint can detect the following physical findings, *except:*

A. Swelling
B. Point tenderness
C. Muscle strength
D. Temperature

51. An athlete is suspected of having a head injury and is mobile, the attending sports physiotherapist uses a Pocket Concussion Recognition Tool on the side-line to determine whether any concussion has occurred. The occurrence of which one of the red flags indicates that the player should be removed safely and immediately from the field to seek urgent medical attention.

A. Repeated vomiting
B. Seizure or convulsion
C. Severe and increasing headache
D. All of the above

52. Skin color can play a significant role during the on-field assessment of endurance athletes. What would be the inference if the skin becomes blue or cyanosis?

A. Heat stroke
B. Respiratory distress
C. Hyperglycemia
D. Hyperventilation

53. If a long-distance marathon runner experienced a heat stroke leading to breathing difficulty, what emergency intervention is done to give comfort to him?

A. Slightly elevating the upper part of the body
B. Placing him in the recovery position
C. Elevating the lower limbs
D. Keeping him in the side-lying position

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54. During the sports like ice hockey, the athletes wear helmets. If any injury that prone that athlete to an unconscious state without any respiratory distress, what would be the most appropriate response?

A. The helmet should be removed immediately even though the facemask or visor does not interfere with ventilation.

B. The helmet should not be removed unless the therapist is absolutely certain that there has not been a neck injury.

C. The helmet can be removed with the help of another therapist.

D. None of the above

55. Identify the most appropriate movement sequence to remove an injured but conscious and mobile athlete from the field of play:

A. Supine lying–Sitting–Kneeling-Supported standing-Unsupported Standing-Walk off the field

B. Supine lying-Sitting-Kneeling-Unsupported standing-Walk off the field

C. Supine lying-Kneeling-Sitting-Supported standing-Unsupported standing-Walk off the field

D. Supine lying-Kneeling-Sitting-Unsupported standing-Walk off the field

56. During the primary assessment, the sports physiotherapist uses several scales to test the severity of an injury or triage the injured athlete. Following scales are employed, *except:*

A. Galveston Orientation and Amnesia Test

B. Abbreviated Injury Scale

C. Circulation, Respiration, Abdomen, Motor, and Speech (CRAMS) Scale

D. Visual Analogue Scale

57. A 16-point scale used to assess the severity of the injury and provide the survival probabilities of trauma patients is known as:

A. Trauma index

B. Trauma scale

C. CRAMS scale

D. Injury severity score

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