



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF REHABILITATIVE MEDICINE
BACHELOR OF SCIENCE IN PHYSIOTHERAPY
END OF MAY-AUGUST 2023 SEMESTER EXAMINATIONS

UNIT CODE: PHT 336
UNIT NAME: SPORTS PHYSIOTHERAPY 2
DATE: MONDAY 14TH AUGUST 2023
TIME: TWO HOURS
START: 6:00 PM STOP: 8:00PM

INSTRUCTIONS

1. This exam is marked out of 70 marks
2. This Examination comprises 3 Sections
3. This online exam shall take 2 hours
4. Late submission of the answers will not be accepted
5. Ensure your web-camera is on at all times during the examination period
6. No movement is allowed during the examination
7. Idling of your machine for 5 min or more will lead to lock out from the exam
8. The Learning Management System (LMS) has inbuilt integrity checks to detect cheating
9. Any aspect of cheating detected during and or after the exam administration will lead to nullification of your exam
10. In case you have any questions call the invigilator for this exam on Tel 0716 364808 or the Head of Department on Tel 0720 491032
11. For adverse incidences please write an email to: amiu.examinations@amref.ac.ke

All the Best!

1. For the in-season athlete with tendinopathy, it is recommended to remove which of the following types of tendon loads from training?
 - a. Fast tensile
 - b. Compressive
 - c. Friction
 - d. Both A and B
 - e. All of the above

2. For the in-season athlete with tendinopathy, pain that is stable and low level is acceptable.
 - a. True
 - b. False

3. In patients with lower limb tendinopathy, we expect their pain level to _____ as they begin to exercise.
 - a. Worsen
 - b. Lessen
 - c. Stay the same

4. What is the primary goal of Phase 1 of tendinopathy rehabilitation?
 - a. Pain relief
 - b. Increase strength
 - c. Increase tendon flexibility
 - d. Increase mobility

5. In order to improve the load capacity of a tendon, _____ loads need to be applied to the tendon and muscle.
 - a. Tensile
 - b. Heavy
 - c. Compressive
 - d. Light

6. Which of the following is the BIGGEST risk factor for a running-related injury?
 - a. Body weight
 - b. Male gender
 - c. Footwear
 - d. Previous running-related injury
 - e. Type I Diabetes

7. Heavy Slow Resistance and Eccentric training are techniques introduced in which phase of tendinopathy rehabilitation?
 - a. Phase 1
 - b. Phase 2
 - c. Phase 3
 - d. Phase 4

8. When a tendon has pathological changes, it's anterior-posterior (AP) diameter will _____.
 - a. Increase
 - b. Stay the same
 - c. Decrease

9. A grade II tendon injury presents with:
 - a. Pain during activity that impairs performance and resolves between bouts of activity
 - b. Minimal pain during activity that doesn't impair performance
 - c. Pain that impairs performance and doesn't resolve between bouts of activity
 - d. Pain after activity that resolves between bouts of activity

10. How long do athletes with moderate COVID-19 infection need to wait before starting a graded Return to Play (RTP) program?
 - a. 14 days from their (+) test
 - b. 14 days from their (+) test and 10 days after symptom resolution
 - c. 3-6 months
 - d. None of the above

11. You are working with a volleyball player who had a moderate COVID-19 infection. You are on week 2 of the return to play program and the athlete develops new-onset increased shortness of breath and fatigue while completing jumping drills during practice. What action would you take?
 - a. Ask the athlete to rest for 15 minutes then return to practice.
 - b. Tell the athlete to take the day off and return to practice tomorrow.
 - c. After practice is over, refer the athlete to be evaluated by the team physician
 - d. Tell the athlete to discontinue all physical activity and immediately be evaluated by the team physician.

12. Which of the following athletes DO need a physician's evaluation and clearance before starting a graded Return to Play program after COVID-19 infection?
 - a. 12 yo rugby player with mild infection
 - b. 23yo basketball player with mild infection
 - c. 27yo runner with moderate infection
 - d. 67 yo soccer player with mild infection
 - e. Both C and D need physician clearance

13. In order to return to sport after an ACL tear/repair, quadriceps strength should be at least ____ of the non-operative limb.
 - a. >70%
 - b. >80%
 - c. >90%
 - d. 100%

14. Which of the following female sports has the highest risk of bone stress injuries?
- Long distance running (cross country running)
 - Synchronized swimming
 - Tennis
 - Water polo
15. Which of the following risk factors can lead to a bone stress injury in long distance (cross country) runners?
- Inadequate calcium intake
 - Increased running distance
 - Female gender
 - Inadequate caloric intake
 - All of the above
16. Which of the following symptoms are most common in patients with acetabular labral tear?
- Pain and limited hip extension
 - Catching, locking, clicking sensations
 - Limited hip external rotation
 - All of the above
17. Your patient is a 24-year old male who plays football (soccer). He reports deep hip pain with kicking with his Right leg. He reports the following symptoms during practice.
- R hip pain with deep squats
 - (+) FADIR/ hip scour for (R) pain in the flexion/adduction quadrant of the hip, worsened with addition of internal rotation. No ROM difference from her (L) side.
 - (R) hip flexor muscle weakness
 - (+) log roll test (R) for increased hip IR on the involved side, with reproduction of her familiar hip and low back pain.
- What do you think is the condition most likely causing this patient's presentation?
- Loose bodies in the hip joint
 - Femoral acetabular impingement syndrome
 - Slipped femoral capital epiphysis
 - Lumbar radiculopathy
 - Acetabular labral tear
 - None of the above
 - Both B and E
18. All types of running utilize the same biomechanics.
- True
 - False
19. You are performing an assessment on a 41-year-old female runner who presents with complaints of pain in her right Achilles tendon. She is able to balance on her right leg and her left for 30 seconds each with her eyes open. How would you progress this test to be more challenging?

- a. Ask her to complete it in tandem stance.
 - b. Ask her to complete it with one finger on the treatment table.
 - c. Ask her to complete it with her eyes closed.
 - d. Ask her to hop on one leg.
20. In order to heal a tendon injury and restore pain free function, which is the best intervention?
- a. Massage
 - b. Unloading and rest
 - c. Ice
 - d. Exercise
21. In sport, which of the “clinical symptoms” of autonomic dysreflexia be misappropriated or misunderstood as beneficial to performance?
- a. Bradycardia
 - b. Hypertension
 - c. Sweating
 - d. Dyspnea
 - e. All of the above.
 - f. None of the above
22. Burnham’s study, “Intentional induction of autonomic dysreflexia among quadriplegic athletes for performance enhancement” presented in class, the purposeful use of autonomic dysreflexia enhanced the athletes’ performance.
- a. True
 - b. False
23. Burnham’s study “Acute median nerve dysfunction from wheelchair propulsion: the development of a model and study of the effect of hand protection” demonstrated that the use of padded gloves could significantly reduce the incidence and severity of median nerve trauma when wheeling.
- a. True
 - b. False
24. When comparing the use of upper extremity cycling to lower extremity cycling, the peak heart rate with a maximal workload will be _____ when using the upper extremities versus the lower extremities.
- a. Higher
 - b. Lower
 - c. Similar

25. When comparing the use of upper extremity cycling to lower extremity cycling, the peak systolic blood pressure with a maximal workload will be _____ when using the upper extremities versus the lower extremities.
- Higher
 - Lower
 - Similar
26. When considering issues of exercise training with individuals living with a spinal cord injury, issues of thermoregulation are only of importance for those with cervical spine level injury.
- True
 - False
27. Which of the following typical upper extremity is considered a poor choice and puts the wheelchair user's shoulder at risk for injury?
- Press ups or Dips
 - Rowing
 - Resisted wheelchair pushing
 - Pectoralis flies – horizontal should flexion
28. Which of the following cognitive symptoms displayed post-concussion are indicative of a more serious injury?
- Heightened distractibility
 - Inability to carry out a sequence of goal-directed movements
 - Inability to maintain a coherent stream of thought
 - Post-traumatic amnesia
 - Retrograde amnesia
29. Which of the following are not typical cognitive post-concussion symptoms?
- Vacant stare (befuddled facial expression)
 - Delayed verbal and motor response (slower to answer questions or follow instructions)
 - Inability to focus attention (easily distracted)
 - Disorientation (walking in wrong direction, unaware of time, place, date)
 - All of the above
 - All of the above except "A"
 - All of the above except "B"
 - All of the above except "C"
 - All of the above except "D"
30. Which of the following is not considered a post-concussion red flag and the care giver/parent must be made aware of these prior to the athlete going home?
- Insatiable appetite

- b. Neck pain
 - c. Poor awakening
 - d. Slurred speech
31. The “3-Strike” program for return to activity, allows for the athlete to have slight/mild symptoms prior to attempting the maximum of 30 minutes of light activity.
- a. True
 - b. False
32. The “Stepwise” return to play program requires the athlete to be completely asymptomatic prior to even a return to light exercise.
- a. True
 - b. False
33. What is the most common muscle to be involved in external shoulder impingement?
- a. Infraspinatus
 - b. Subscapulari
 - c. Supraspinatus
 - d. Infraspinatus
 - e. Supraspinatus
34. Why do we get so many shoulder injuries with overhead motions?
- a. Glenoid is directed more lateral versus cranial
 - b. Acromion and coracoid provide little surface area and thus limited stability
 - c. Scapula move more in medial/lateral rotation versus cranio-caudal directions
 - d. All of the above
 - e. All of the above except A
 - f. All of the above except B
 - g. All of the above except C
35. You are the team physiotherapist for a local rugby club. During one of the team's matches, one of the loose forwards sustains a left elbow injury after his opponent ripped the ball from his hands during a maul. The player experienced a sudden, sharp pain. Some swelling is visible on the anterior elbow and there is a noticeable bulge in his upper arm. The player has limited elbow flexion and reduced forearm rotation. When performing the biceps squeeze test, you note an absence of supination of the forearm. What would your MOST LIKELY diagnosis be in this scenario?
- a. Medial epicondylalgia
 - b. Total distal biceps rupture
 - c. Ulnar collateral ligament insufficiency

36. A female boxer throws a hook punch with her lead arm/hand. Considering the kinetic chain, how much force will she be generating from her lower legs? Select the correct answer.
- 10%
 - 20%
 - 50%
 - 75%
37. Which of the following conditions need to be considered in the differential diagnosis of anterior elbow pain? Select the 2 correct answers.
- Triceps tendinopathy
 - Biceps tear
 - Olecranon bursitis
 - All of the above
 - All of the above except A
 - All of the above except B
 - All of the above except C
38. An overhead athlete with complains to the therapist of shoulder tightness and a feeling that the shoulder does not loosen up with activity. After a thorough evaluation the physical therapist diagnose the patient with internal shoulder impingement. What early management treatment regime should be followed?
- Strengthening of the posterior capsule and weak muscles
 - Ice and NSAIDs as adjuncts to therapy
 - Improving muscle imbalance around the shoulder complex
 - Rest from overhead activities
 - Closed kinetic chain exercises
 - All of the above
 - All of the above except A
 - All of the above except B
 - All of the above except C
 - All of the above except D
 - All of the above except E
39. What clinical findings will you see with a patient with SICK scapula?
- Scapular malposition, a prominent inferior medial border, coracoid pain, scapular dyskinesia
 - Scapular pain, a prominent inferior medial border, coracoid position, scapular dyskinesia
 - Scapular pain, a prominent inferior lateral border, coracoid position, scapular dyskinesia
 - All of the above
 - All of the above except A
 - All of the above except B

- g. All of the above except C
40. When evaluating an athlete with posterior shoulder pain which of the following might be true for internal impingement presentation?
- a. Neuromuscular imbalance
 - b. Rotator cuff weakness
 - c. Increased laxity
 - d. Anterior instability
 - e. All of the above
 - f. All of the above except A
 - g. All of the above except B
 - h. All of the above except C
 - i. All of the above except D
41. Which of the following may be the cause of internal shoulder impingement?
- a. Scapular dyskinesis
 - b. Excessive humeral translation
 - c. Shape of the acromion process
42. Which the following have been found to be a major predictor for a poor outcome for people presenting with shoulder pain?
- a. Mild trauma or overuse before onset of pain
 - b. People with arthritis
 - c. Acute onset with no previous episode
 - d. High level of pain intensity on the first consultation
43. An individual is most likely to experience shoulder pain in which of the following periods of their life?
- a. Older Person 65+
 - b. Mid Life 45 - 64
 - c. Adults 20 - 44
 - d. Adolescents 13 – 19
 - e. Children 0 – 12
44. What is considered the most common upper extremity fracture in sports?
- a. Acromion
 - b. Clavicular
 - c. Humeral neck
 - d. Radial head
 - e. Scaphoid

45. What direction is most common for a shoulder dislocation?
- Anterior
 - Anterolateral
 - Posterior
 - Posterolateral
46. Ruptures of the biceps tendon occur primarily in teens and young adults.
- True
 - False
47. The blood supply to the scaphoid is limited and it arrives via the distal pole.
- True
 - False
48. The typical mechanism of injury of an AC joint separation is fall onto an outstretched arm or a blow to the anterior aspect of the shoulder.
- True
 - False
49. Tendinopathies about the elbow account for most of the pathologic condition in patients presenting with elbow pain and most commonly at the lateral epicondyle
- True
 - False
50. Injuries to the rotator cuff is one of the most common upper extremity injuries found in the general and recreational active populations, accounting for over 60% of reported shoulder pain/dysfunction in those over the age of 80.
- True
 - False
51. Most athletic shoulder injuries are the result of either microtrauma or microtrauma. Which of the following is an example of the most common form of microtrauma resulting in an athletic should injury?
- Acute internal forces applied onto the shoulder complex.
 - Acute external force applied onto the shoulder complex.
 - Repetitive overhead activities, like a tennis serve
 - Repetitive throwing actions, like baseball or cricket
52. In racket sports there has been limited if any association between the weight of the racket and the incidence of lateral elbow tendinopathies, whereas actual overuse and poor technique have very high association with chronic elbow dysfunction.
- True
 - False

53. A kyphotic posture and associated scapular protraction is a strong predisposing factor for shoulder impingement syndrome.
- a. True
 - b. False

AMU