

Wednesday, April 08, 2015
4:48 PM

Final Examination
HK1N 361- 002 April 2008

please note:

Please choose the answer that reflects the *most correct* response to the question.

Place the letter that corresponds to that answer beside the appropriate question on the answer sheet provided.

VALUE: 70 marks

Time: 1.5 hours

1. The athlete, who presents with pain along the iliac crest upon palpation, and pain with hip flexion or extension, probably has a(n):

- A) greater trochanteric bursitis
- B) sacroiliac sprain
- C) subperiosteal haematoma
- D) stress Fx of the pubic tubercle

2. A bilateral stress fracture in the pars interarticularis that could lead to a displaced fracture of the vertebral body is:

- A. lordosis
- B. spina bifida
- C. spondylolysis
- D. spondylolisthesis

3. The orientation of the facet joints of the thoracic area of the vertebral column allow for which of the following movements?

- A) flexion/extension
- C) side bending
- C. rotation
- D. a combination of answers A and C.

4. When the vertebral column has a "S" shaped curve when viewed from the back, it is known as:

- A. excessive lordosis
- B) excessive kyphosis
- C) scoliosis
- D) spondylftis

5. When the nucleus pulposus impinges on the nerve root in the intervertebral foramen, it is called a(n):

- A. stenosis
- B. herniated disc
- C. sciatic compression
- D. sequestrated disc

- 6 In athletics, a transient loss of motor and sensory function down both arms (a stinger) is usually caused by:
- A) a unilateral compression of the thoracic nerve root
 - B) a bilateral compression of a cervical nerve root
 - C. a unilateral stretch of a thoracic nerve root
 - D. a unilateral stretch of a cervical nerve root
7. Getting one's "wind knocked out..." is in fact a thoracic muscle spasm or a spasm of:
- A) the thoraco-lumbar fascia
 - B) the diaphragm
 - C. the abdominal muscles of the thoracic area
 - D. the erector spinae muscles
- 8 The ligament that resists vertical excursion of the distal clavicle from the acromion is the :
- A. acromioclavicular lig.
 - B. costoclavicular lig.
 - C) coracoclavicular lig.
 - D) sternoclavicular lig.
9. The main function of the rotator cuff muscles is to:
- A. perform adduction and external rotation
 - B. perform abduction and internal rotation
 - C) secure the humerus in the glenoid fossa
 - D) facilitate scapulothoracic movement
10. If the acromio-clavicular joint is pinned surgically after a grade three separation, the shoulder joint will have a reduced ROM in abduction of:
- A. 80 degrees
 - B. 60 degrees
 - C. 40 degrees
 - D. 30 degrees
11. Which of the following tissues is not usually injured with an impingement syndrome of the shoulder?
- A. long head of the biceps brachii muscle
 - B. supraspinatus muscle
 - C. subacromial bursa
 - D) infraspinatus muscle
12. Pain during the acceleration phase of the pitching motion could be all of the following except:
- A) posterior deltoid muscle
 - B) subscapularis muscle
 - C) anterior deltoid muscle
 - D) pectoralis major muscle

13. Infectious mononucleosis results in an insidious condition called:
- A. rebound peritonitis
 - B. appendicitis
 - C) splenomegaly
 - D) peritonitis
14. Dimethylsulfoxide is a dangerous anti-inflammatory substance that works through:
- A. destruction of nerve endings
 - B. Blocking of acetylcholine receptors
 - C) Changing cell wall permeability
 - D) none of the above are correct answers
15. A baseball player presents with pain in the upper 1/3 of the anterior aspect of the humerus which worsens with continued use. It is particularly hurtful during the initial stages of the forward throw (acceleration). You suspect:
- A. rotator cuff injury
 - B. anterior subluxation of the humerus
 - C) tendonitis of the pectoralis major m.
 - D) subacromial bursitis
16. Nearly 80% of all clavicular fractures occur at the :
- A) proximal 1/3
 - B) middle 1/3
 - D) distal 1/3
 - E) at the acromion
17. The 'carrying angle' of the elbow is the presence of:
- A) cubital varus
 - B) cubital valgus
 - C) congenitally lengthened ulna
 - D) congenitally shortened radius
18. The motions allowed at the humero-radial joint are:
- A. flexion
 - B. extension
 - C. pronation
 - D. any of the above movement
19. Another name for the lateral collateral ligament at the elbow is the:
- A) annular ligament
 - B) humero-ulnar ligament
 - C) radio-humeral ligament
 - D) none of the above answers are correct

20. After a hyperextension injury of the elbow, palpable anterior joint line pain is commonly attributed to:
- A) arterial impairment
 - B) collateral ligament damage
 - C) ulnar nerve entrapment
 - D) anterior capsulitis
21. Resisted extension of the middle finger is a definitive test for:
- A) Volkmann's contracture
 - B) Carpel tunnel syndrome
 - C) Tennis elbow
 - D) avulsion of the extensor hood mechanism
22. An inability to flex the P.I.P. jt of the second finger is due to a rupture of the tendon of which muscle?
- A) flexor digitorum superficialis m.
 - B) extensor digitorum longus m.
 - C) flexor digitorum profundus m.
 - D) flexor indices m.
23. After an athlete has sustained a moderate concussion, he/she must not participate for 10 to 14 days to prevent the occurrence of which could happen with another injury to the head.
- A)secondary impact syndrome
 - B)post concussion syndrome
 - C)post traumatic amnesia
 - D)lucid interval
24. A deformity caused by the rupture of the extensor hood tendon at the middle phalanx is called:
- A) mallet finger
 - B. boutinriere deformity
 - C. baseball finger
 - D. jersey finger
25. The mechanism of the lunate dislocation is:
- A. transverse load on the shaft of the bone
 - B. hyperextension of the wrist
 - C. axial load on the shaft of the bone
 - D. extreme valgus or varus stress to the wrist
26. A specialized connective tissue that forms a protective passageway for the flexor tendons, nerves and blood vessels at the wrist, is the:
- A. retinaculae
 - B. synovial tunnel
 - C. Tunnel 1
 - D. carpel ligament

<p>27. The index finger is on the assume anatomic position! A) medial B) lateral C) ulnar D) radial</p>		<p>side of the middle finger. Do not</p>
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28. The middle meningeal, that separates venous and arterial supply, is the:
- A) pia mater
 - B) arachnoid layer
 - C) dura mater
 - D) the cerebral ligament
29. In general, the most severe types of injuries to the brain are:
- A. determined by skull velocity at impact
 - B. determined by brain velocity at impact
 - C. an accelerating blow
 - D. a decelerating blow
30. Should an athlete suffer a *secondary impact syndrome*, he/she would in fact have a(n):
- A) epidural haemorrhage
 - B) subdural haemorrhage
 - C) subarachnoid haemorrhage
 - D) extracranial haemorrhage
31. Which of the following is a classic sign of a grade III concussion?
- A. tinnitus
 - B. headache
 - C. loss of balance and coordination
 - D. retrograde amnesia
32. A test used to determine the degree of balance difficulty in assessing a possible concussion is:
- A) the Romberg test
 - B) the Babinski test
 - C) the Finger-to-Nose test
 - D) the Tinetti test
33. After hitting her head on the ground but never having lost consciousness, an athlete presents with acute confusion, tinnitus, and a headache. After ten minutes only a headache remains. This is most likely a concussion rated at:
- A. grade I
 - B. grade II
 - C. grade III
 - D. inconclusive

34. Anterior chamber haemorrhage presents with:
- A. a scratch across the cornea
 - B. "raccoon" eye
 - C. drooping eyelid
 - D. a visible meniscus of blood
35. One always retests a concussed athlete every ten minutes primarily to detect the presence, or absence of a:
- A. secondary impact syndrome
 - B. primary concussion
 - C. post traumatic amnesia
 - D. lucid interval
36. A deformity caused by the rupture of the extensor tendon at the distal phalanx of the finger is called:
- A. mallet finger
 - B. boutonniere deformity
 - C. baseball finger
 - D. jersey finger
37. The presence of small papillae, with a shiny pink dome would indicate
- A) impetigo
 - B) molluscum contagiosum
 - C. tinea cruris
 - D. herpes gladiatorum
38. The presence, on the skin, of a rash surrounded by a yellowish exudate, indicates impetigo, a condition:
- A) that is very infectious
 - B) can be controlled by exposing it to light
 - C) that is very contagious
 - D) that is caused by viral organisms
39. Viruses can be killed in the body by:
- A. antibiotics
 - B. astringents
 - C. exposing them to light
 - D. none of the above are effective against viruses
40. Viruses, once in the body, can usually be held asymptomatic by the:
- A) natural endorphins
 - B) auto-immune system
 - C) natural steroidal anti-inflammatories
 - D) hormonal interference with viral propagation
41. Molluscum contagiosum and scabies are:
- A. easily controlled with topical antibiotics
 - B. all of bacterial origin
 - C) highly contagious

- D) all associated with infections of the sebaceous glands
42. A referred pain to the upper 1/3 of the left arm is the result of
- A. hepatic rupture
 - B. ruptured bladder.
 - C. contusion to the kidney
 - D) splenic rupture
43. A swimmer complains of anterior shoulder pain, particularly bothersome during butterfly stroke. Pain is centered on the anterior lip of the acromion, and pain is exacerbated with horizontal adduction across the chest. The probable condition with these symptoms is an inflammation of:
- A) supraspinatus tendon
 - B) coracoacromial ligament
 - C) infraspinatus tendon
 - D) pectoralis major tendon
44. A baseball pitcher complains of diffuse elbow pain at the medial joint line. There is periodic numbness and tingling sensations radiating from this point. A valgus stress test to the elbow is negative. There is differential weakness with resisted wrist flexion. You suspect:
- A. medial collateral ligament sprain
 - B. avascular necrosis of the capitulum
 - C) medial epicondylitis pressuring the ulnar nerve
 - D) medial epicondylitis pressuring the radial nerve
45. An athlete complains of waking in the night with numbness and tingling in the hand and fingers. It hurts to flex the fingers. Which of the following tests will assist in the assessment?
- A) Resisted extension of the middle finger
 - B) Phelan's test
 - C) Resisted radial and ulnar deviation of the wrist
 - D) flexor digitorum superficialis m.
46. The preferred treatment of impetigo would be regular cleansing of the affected area with alcohol and a course of:
- A. antifungal medication
 - B. antiviral creme
 - C. NSAID medication
 - D. antibiotic creme
47. An inflammation of the *synovial* sheath surrounding the *tendon* of the extensor digitorum muscle at tunnel three would be called:
- A. synovitis
 - B. tendonitis
 - C. peritendonitis
 - D. tenosynovitis

48. An athlete that is injured at the shoulder from breaking her fall by reaching out with her hand, has a good passive range of motion at the shoulder, but is positive to an apprehension test. You suspect
- A. shoulder dislocation
 - B. shoulder separation
 - C. shoulder subluxation
 - D) rupture of the acromio-clavicular ligament
- 49 A football lineman received a blunt trauma to the bicep muscles during a game. After the game it received the RICE treatment, but after one week, the elbow lacks complete extension, reduced flexion force production and the mass in the muscle has enlarged. You suspect:
- A) myositis ossificans
 - B) rupture of the bicep muscle
 - C) heterotrphic carcinogenic myeloma
 - D) sustained bleeding of the injury.
- 50 An athlete presents with pain at the lateral elbow, especially with active extension of the wrist. The athlete reports pain with resisted extension of the middle digit of the hand. You suspect:
- A) extensor hood inflammation
 - B) medial epicondylitis
 - C) lunate dislocation
 - D) lateral epicondylitis
51. An athlete is in the act of cocking the arm (i.e. externally rotating the humerus) to throw a long ball, when someone fooling around blocks the external rotation of the arm. The athlete feels a sudden sharp pain high on the humerus and presents with unilateral weakness in external rotation test. The assessment is otherwise uneventful. You suspect a strain to:
- A. the pectoralis major muscle
 - B. the subscapularis muscle
 - C. the infraspinatus/Teres minor muscles
 - D. the latissimus dorsi muscle
- 52 Hypothermia, as a medical crisis, and is symptomized by rectal temperatures below:
- A. 37 C
 - B. 35 C
 - C. 30 C
 - D. 28 C

53 Which of the following is NOT a common O.T.C. drug that will act as an anti-inflammatory, analgesic and antipyretic?

- A) Acetaminophen
- B. Acetylsalicylic acid
- C. Ibuprofen
- D. Fenoprofen

54. Which of the following is a differential method for determining the difference between heat stroke and heat exhaustion?

- A. Unsteady gait
- B. Lapsing in and out of consciousness
- C. The constriction or dilation of the pupils
- D. None of the above are correct answers.

55. Which of the following is not an effect from the ingestion of an xanthine, such as caffeine?

- A. C.N.S. excitation
- B. A diuretic
- C. Peripheral vasodilation
- D. Decreased G.I. tract motility

56. A displaced spiral fracture to the metacarpels, usually requires:

- A. casting for 12 to 14 weeks
- B. a simple splint for six weeks
- C. open reduction, internal fixation
- D. none of the above procedures

57. In a scaphoid fracture, the bone usually breaks at :

- A. the Radial end of the scaphoid
- B. the ulnar end of the scaphoid
- C. the isthmus of the scaphoid
- D. the longitudinal fissure

58. A test used to determine the status of an athlete's coordination is:

- A. the Romberg test
- B. the Babinski test
- C. the finger-to-nose test
- D. the tinel sign

59. The inability of the eyes to smoothly track an object moving across the visual field is called:
- A) the doppler effect
 - B) nystagmus
 - C) decorticate rigidity
 - D) decerebrate rigidity
60. The "golden halo" test on gauze is used to determine the presence or absence of:
- A. A laceration to the ear
 - B. A broken nose
 - C. CSF in blood
 - D. CST in urine
61. An athlete, having just finished the Tucson marathon, collapses just beyond the finish line. He is lapsing into unconsciousness, has a rapid weak pulse, rapid shallow breathing, and his skin is cool and grayish and pupils are dilated. The medics on hand suspect heat exhaustion, the preferred treatment for which is...:
- A) forced evaporation
 - B) get the athlete to drink some cool fluids
 - C) use an automatic electronic defibrillator
 - D) have the athlete injected with hydrocortisone
62. Heat stroke is a medical crisis, and is characterized by :
- A. cool clammy skin.
 - B. gasping for breath.
 - C. rapid bounding pulse
 - D. more than one answer is correct
63. Muscle relaxant drugs are given to help break the pain — spasm cycle e.g. Robaxin^R. these drugs...
- A. cause an increased inflammatory response to injury
 - B. relax a specific muscle
 - C. cause a general decrease in muscle tonus throughout the body
 - D. cause an increase in CNS activity
64. The body is mildly hypothermic when...
- A) The person is shivering
 - B) Perspiration on the face is frozen.
 - C) When shivering is no longer volitional
 - D) More then one answer is correct

65 Pain in the upper 1/3 of the left arm could be the result of:

- A) rebound peritonitis
- B) splenic rupture
- C) splenomegaly
- D) peritonitis

66 A lower abdominal pain characterized by rebound peritonitis is:

- A) abdominal bleeding
- B) appendicitis
- C) splenic rupture
- D) pancreatic infection

67. a lower abdominal pain characterized by peritonitis is:

- A. splenic rupture
- B. appendicitis
- C. pneumothorax
- D. infectious mononucleosis

68. An football receives a very hard hit to the left side of the body while in the air to catch a pass. He soon presents as being a little unsteady, and unable to run his routes properly. Off the field he presents with shortness of breath and a little frothy red blood in the mouth

- A. He may have a ruptured bowel
- B. He may have a haemothorax
- C. He certainly has a ruptured appendix
- D. He may have a pneumothorax

69. While skin diving, one is at great risk of drowning if...

- A. they eat legumes within 24 hrs of swimming
- B. if they have been on an airplane within 24 hrs
- C. if they use a weighted belt
- D. if they hyperventilate before diving

70. Which of the following muscles is susceptible to strain?

- A. Vastus lateralis m.
- B. Vastus intermedius m.
- C. Rectus femoris m.
- D. More than one answer is correct

71. Which of the following would not be helpful for athletes trying to recover from a long flight?

- A. a light workout
- B. lots of water
- C. sleep when they need to
- D. drink coffee in mornings only

72. Which of the following compounds will put an athlete at risk in a very hot humid environment?
- A. Ephedra
 - B. Caffeine
 - C. DiMethylSulfOxide (DMSO)
 - D. NSAID medications
73. For someone suffering heat exhaustion, it is MOST important to...
- A. Put the person under cold water.
 - B. Sprinkle water on them and fan, to force evaporation
 - C. Put them in the shade
 - D. Give them cool water to drink
74. The best way to treat a bleeding nose is...
- A. To put sterile gauze in the nose as a plug
 - B. To apply direct pressure to the nose
 - C. To use silver nitrate to cauterize the artery
 - D. To apply direct pressure just distal to the nasal bone
75. Which of the following statements is/are true about using steristrips to close a laceration.
- A. Make sure the cut is sterilized
 - B. Shave the hair off the affected area
 - C. Use steristrips to stop bleeding and take for stitches later
 - D. More than one answer is appropriate