# 筑 <br>  <br> Test Bank 

## Subject:

## Sub Surgery FinalOrthopedics Collected by:

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2022:
osteoarthrosis in the knee, x-ray will show all the following , except :
a-cyst formation
b-osteophyte
c- periarticular osteopenia
d- subchondral sclerosis
e- narrow space joint

2- All are considered a risk factors for osteoarthritis except:
osteoporosis.

One of the following is a symptom of an advanced carpal tunnel syndrome:
a. Total numbness (anesthesia)
b. Objects falling from the hand
c. History of diabetes
d. Sleep disturbances due to pain
e. Paresthesia

Answer B

4- One of the following fracture patterns is expected to be the best in healing?
a- transverse
b-segmental
c- oblique
d- comminuted
Answer c

5- question about best \& early treatment of clubfoot :
something about bracing to decrease progression .
-Elderly with peptic ulcer have not respond to analgesia for knee pain :
a- increase dose of analgesia
b- knee arthroplasty
Answer B
false about children skeleton in comparison to adults :
a- better growth
b- better healing
c-specific fracture
d- comminuted fracture more
Answer D
8-Tillaux fracture:
fracture of the anterolateral distal tibia epiphysis ... ( Transitional fracture, SH type III)

9- Codman triangle on x-ray, indicate of :
osteosarcoma

10- Mostly seen in a child above 3 years with bilateral DDH ?
wide perineum

Question about dislocated patella .. with hemarthrosis and floating fragments .. the origin of these fragments ?

Medial patellar facet.

12-Scenario about : Fragmentation and focal resorption of the femoral epiphysis, and minor subluxation ,....diagnosis ?
a-perthes
b-DDH
Answer A
-False about slipped femoral capital epiphysis:
A. more in Females
B. 70\% gradual in onset
C. Lateral view is important in diagnosis
D. Affected Limb is externally rotated

14- The classic presentation of patient with subtrochanteric facture:
a-adduction and extension of proximal
b- abduction and extension of proximal
c- predominantly internal rotation of proximal
$d$ - adduction and flexion
e- abduction and flexion

15 -question about intertrochanteric fracture :
female (risk of osteoporosis)

16- 30 years old man with tibial fracture?
Open reduction and internal fixation

17- question of a 70 year old woman fall on wet floor?
Fracture of femur shaft

18- The structure that determine the stability in ankle fracture is:
a. syndesmosis
b. articular surface
c. Anterior talofibular ligament
d. calcaneofibular ligament
e. Posterior talofibular ligament

Answer A

19- A 15-year old female patient is being assessed for scoliosis that was noticed 2 years ago, her curve measure 65 degrees. How would you counsel her with regards to this deformity?
a. Neurological exam is not mandatory in idiopathic scoliosis
b. Pain is rare with this type of deformity
c. She doesn't need treatment as it is unlikely that this curve will progress
d. A type 5 riser sign indicates that this patient is skeletally mature
e. main goal of surgery if to be done is cosmetic

Answer D

20- A Basketball player developed immediate swelling of the medial knee after a rebound fall, what is the structure most likely to be injured is
A.Mcl
B.Acl
C. Meniscus

## 2021:

Mortality with hip fracture in the elderly is highest with which co- morbidity:
a.BMI of 35 .
b.Renal failure.
c.Diabetes.
d.High blood pressure.
e.Smoking.

2- In unconscious patient the spinal injury is assessed by one of the following:
a. spinal tenderness
b. absence of response to painful stimulus
c. Absence of deep reflexes
d. inspection of the back of patient
e. moving upper and lower limbs of the patient

Answer C

One of the following fracture patterns is expected to take the longest time to heal:
a. Buckle.
b. Oblique.
c. Spiral.
d. Greenstick.
e. Transverse.

- Measurement of the curve severity of an adolescent idiopathic scoliosis by:
a. Perkin's angle.
b. Vertebral Scapular angle.
c. Cobb's angle.
d. Vertebral Sacral angle.
e. Vertebrocostal angle.

The highest fracture remodeling capacity would be in a:
a. Humeral shaft fracture in a 10-year-old boy.
b. Intertrochanteric fracture in a 75-year-old man.
c. Surgical neck humerus fracture in a 65-year-old lady.
d. Tibial shaft fracture in a 40-year-old lady.
e. Distal radius fracture in a 4-year-old girl.

Answer E

6- Which best describes neglected complete dislocation in developmental hip dysplasia (DDH) in a 3-year-old child?
a. Normal ossification of capital epiphysis.
b. Round femoral head.
c. Neck shaft angle is less than 110 degrees.
d. Femoral head is pulled proximally \& amp; laterally by hip adductors.
e. Anteversion of head and neck of femur

## Answer D

A 13-year-old girl had a knee x-ray after injuring her knee while playing volleyball. It showed a lesion in the distal femoral metaphysis. The presence of which of these radiological findings favors a benign entity over a malignant one:
a. Wide transition zone.
b. Well-defined margins.
c. Cortical destruction.
d. Lytic lesion.
e. Sunray appearance.

## Answer B

8- A 65-year-old male patient had a direct fall on his right shoulder. Now he cannot abduct or do forward flexion. The most common tendon to be torn is:
a. Subscapularis
b. Long head of biceps
c. Deltoid
d. Supraspinatus
e. Infraspinatus

Answer D

Which of the following physical exam maneuvers would be most expected for a patient with a Segond's fx on his radiograph
a. Positive McMurray's test with leg internally rotated
b. Positive McMurray's test with leg externally rotated
c. positive Lachman test
d. Positive external rotation dial test with knee flexed at 30 degrees
e. Positive external rotation dial test with knee flexed at 30 degrees and 90 degrees

10- A 50-year-old female patient with right hallux valgus deformity, indication for operative treatment is:
a. Associated rotational deformity.
b. Intermetatarsal angle of 20
c. Painful deformity.
d. Hallux valgus angle of 35
e. Associated curly 2nd toe.

11- A pointing index sign results from injury to the:
a. Posterior interosseous nerve
b. Median nerve
c. Radial nerve
d. Ulnar nerve
e. Musculocutaneous nerve

12-10-year-old male child presented with a painful rigid flat foot deformity; his pain started few months ago. He has no trauma to the foot, no constitutional symptoms. No underlying neurological abnormality. Most probably he has:
a. Degenerative mid-foot arthropathy
b. Skew foot
c. Calcaneonavicular coalition
d. Club foot
e. Peroneal spasticity

Answer C

13- The rectus femoris is active at what phase of the gait cycle?
a. at pre swing
b. at late swing
c. at mid stance
d. Immediately following initial contact
e. at terminal stance

14- one is not a feature of intertrochanteric fracture:
a. More vascular anastomosis
b. High risk of femoral head avascular necrosis
c. Better healing than femur neck fractures
d. More cancellous type of bone
e. Less nonunion

Answer B

15- A 25-year-old male patient presented with history of mechanical low back pain for 2 months. without radicular symptoms or red flags. on examination the pain becomes worse with flexion and extension although the patient can do full range of motion. the best course of management ?
a. Oral steroids
b. Lumbo-sacral spine x-ray
c. Analgesia, limited bed rest, and return to work as pain allowed
d. Intra-muscular steroid injection
e. Lumber MRI

16- One of the followings is not a risk factor for Quadriceps Tendon Rupture:
a. steroid use
b. connective tissue disorders
C. rheumatoid arthritis
d. diabetes
e. hypoparathyroidism

Answer E

- One is not seen during examination of typical club foot deformity:
a. Equinus deformity
b. Deep medial foot crease
c. More forefoot supination in relation to the hindfoot
d. Forefoot adductionp
e. Hind foot varus

18- A 48-year-old male had a direct trauma to his left lower limb resulting in isolated posterior knee dislocation, he had decreased sensation over the foot and absent distal pulses. Next step is:
a. More Intravenous fluids.
b. Application of external fixator.
c. Urgent Arthroscopy.
d. Reduction.
e. Angiogram in the Emergency room.

9- The structure that determine the stability in ankle fracture is:
a. syndesmosis
b. articular surface
c. Anterior talofibular ligament
d. calcaneofibular ligament
e. Posterior talofibular ligament

Answer A

20- Denosumab Mechanism of action in the treatment of osteoporosis is:
a. activates Wnt pathway by binding sclerostin
b. Agonist on estrogen receptors in bone
c. stimulates intestinal absorption Ca and PO4
d. Binds membrane receptors on osteoclasts to inhibit resorption
e. Monoclonal lg2 against RANKL

Answer E

21- One of the following $x$-ray changes is pathognomonic for chronic osteomyelitis:
a. Involucrum
b. Rarefaction
c. Bone destruction
d. Sequestrum
e. Sinus

22- One of the following is a symptom of an advanced carpal tunnel syndrome:
a. Total numbness (anesthesia)
b. Objects falling from the hand
c. History of diabetes
d. Sleep disturbances due to pain
e. Paresthesia

Answer B

23- One of the following is NOT an indication of MRI in patients with acute low back pain:
a. night pain, rest pain
b. post-menopausal osteopenia
c. history of malignancy
d. progressive neurological deficit
e. new onset urinary incontinence

## 2020

24-The major determinant of the type of healing of a fracture (primary or secondary healing) is:
a. The age of the patient
b. The extent of soft tissue injury
c. The site of the fracture
d. The degree of fracture displacement
e. The stability of fracture fixation

Answer E

25_Which one of the following pairs best matches?
a. Distal radius fracture: anterior interosseous nerve injury
b. Midshaft humeral fracture: median nerve Injury
c. Salter Harris I fracture: significant growth arrest
d. Posterior hip dislocation: sciatic nerve injury
e. Ankle fracture-dislocation: Popliteal artery injury

Answer D

26_ Which of the following x-ray findings is characteristic of a left sided developmental dysplasia of the hip (dislocation type) in a 7 months old female infant?
a. Acetabular index more than 30 degrees with the ossific nucleus located inl the upper outer quadrant
b. Acetabular index less than 30 degrees with the ossific nucleus located in the lower outer quadrant
c. Acetabular index more than 30 degrees with the ossific nucleus located in the lower outer quadrant
d. Acetabular index less than 30 degrees with the ossific nucleus located in the upper outer quadrant
e. Absent ossific nucleus of the femur head

Answer A

27- Which of the following features is found in a severe slipped capital femoral epiphysis in an adolescent male patient?
a. Weak ankle dorsiflexion
b. Absent dorsalis pedis pulse
c. There is always a history of trauma
d. Normal AP and lateral x-ray of the pelvis
e. Obligatory external rotation on hip flexion

Answer E

28- A 65-year old carpenter presented with progressive bilateral knee pain that is not interfering with his activities of daily living, he has medial joint line tenderness and decreased joint space on x-ray, you will advise him:
a. To decrease his weight and take paracetamol
b. To take hyaluronic acid supplements
c. To do bilateral knee arthroscopy
d. To go for total knee replacement
e. To have stem cells transplantation

29- In acute osteomyelitis, the pain is caused by:
a. Increased intraosseous pressure
b. Abscess formation
c. Periosteal reaction
d. Avascular necrosis
e. Fracture

30- Regarding Osteomalacia one is correct:
a. Appendicular fracture predominance
b. Alkaline phosphatase levels always normal
c. Defined as reduced bone mass with normal mineralization
d. Tetracycline labeling normal
e. Post-menopausal only

31- A 15-year old female patient is being assessed for scoliosis that was noticed 2 years ago, her curve measure $\underline{65}$ degrees. How would you counsel her with regards to this deformity?
a. Neurological exam is not mandatory in idiopathic scoliosis
b. Pain is rare with this type of deformity
c. She doesn't need treatment as it is unlikely that this curve will progress
d. A type 5 riser sign indicates that this patient is skeletally mature
e. The main goal of surgery if to be done is cosmetic

Answer D

32-12-year old boy had a knee x-ray after injuring his knee while playing basketball. It showed a lesion in the distal femoral metaphysis. The presence of which of these radiological findings favors a malignant entity over a benign one:
a. Cortical preservation
b. Narrow transition zone
c. Sclerotic rim
d. Well-defined margin
e. Codman's triangle

Answer E

Which of the following statements describe the deformity best known as rocker bottom foot in a child?
a. Treatment is always surgical
b. It is basically a dislocated talocalcaneal joint
c. Its flexible
d. It is rarely bilateral
e. It carries a worse prognosis when compared to a clubfoot

4-A 20-year old male patient with a closed fracture in his right proximal tibia presented with severe pain and swelling in his calf, the earliest sign suggestive of compartment syndrome is:
a. Pain upon passive stretching of the involved compartment muscles
b. Absent distal pulses
c. Excessive swelling of the calf muscle
d. Change in the skin color
e. Paralysis of his foot

Answer A
-The earliest motion to be lost in adhesive capsulitis is:
a. Abduction
b. Extension
c. Adduction
d. External rotation (in an idiopathic pathology)
e. All movements are lost to the same degree

6-In a 20-year-old male patient who had a shoulder dislocation, what is the most common complication?
a. Greater tuberosity fracture
b. Rotator cuff tear
c. Bankart lesion
d. Axillary nerve injury
e. Chondrolysis

37-During a gait training session, you observed the midstance phase of gait from the anterior (front) view of the left lower extremity. The pelvis has an exaggerated downward tilt on the right side, and the right lower extremity is in swing phase. What muscle would the you assess for adequate strength?
a. Left hip adductors
b. Left hip abductors
c. Right hip abductors
d. Right hip adductors
e. Left hip extensors

Answer B

38-A 30-year female patient presented with 1 week history of mechanical low back pain. without radicular symptoms or red flags. On examination the pain becomes worse with flexion and extension although the patient can do full range of motion. The best course of management is:
a. Oral steroids
b. Analgesia, limited bed rest, and return to work as pain permits
c. Lumbar spine MRI
d. Facet joint injection
e. Lumbo-sacral spine $x$-ray

39-ONE is in favor of intertrochanteric fractures when compared to femur neck fractures in adults:
a. Intracapsular in position
b. Presence of high cortical to cancellous bone
c. Low risk of nonunion
d. Impaired hematoma formation
e. Poor vascular supply

Answer C

40-One of the following fracture patterns is more associated than the others with the development of compartment syndrome:
a. Oblique
b. Segmental
c. Avulsion
d. Transverse
e. Spiral

Answer B

41-The most common mechanism that will cause hand infection is:
a. Lymphatic spread from the forearm and arm
b. Hematogenous spread
c. Direct spread
d. Direct inoculation
e. Infected thrombi

42-Which one of the following is true with regards to peripheral nerve injuries?
a. Median nerve injury: wrist drop
b. Radial nerve injury: absent ok sign
c. Femoral nerve injury: foot drop
d. Sciatic nerve injury: weak adductors
e. Ulnar nerve injury: positive froment's sign

Answer E

3-Which of the following physical exam maneuvers would be MOST expected for a patient with a Segond's fracture on his radiograph?
a. Positive lachman test
b. Positive McMurray's test with leg internally rotated
c. Positive McMurray's test with leg externally rotated
d. Positive external rotation dial test with knee flexed at 30 degrees
e. Positive posterior drawer test

Answer A

44-Genu Varus following proximal tibial growth plate injury, results from:
a. Injury to the medial side of the growth plate
b. Injury to the lateral side of the growth plate
c. Injury to the anterolateral side of the growth plate
d. Injury to the anterior side of the growth plate
e. Injury to the posterior side of the growth plate

45-Pain and numbness at night with thenar atrophy and thumb weakness:
positive Tinel sign at wrist.

## 2019

46- True about intra-articular fracture complications - Caused post-traumatic arthritis.

47- In comparison with femur neck fractures, what is true about subtrochanteric fracture? - Higher incidence of mal-union.

48-Patient with compartment syndrome, what to do? - Fasciotomy.
49- Which feature favors malignant over benign tumor on X-ray - ill-defined margin.

50-11-year-old girl with bone pain and lytic lesion on X-ray, what is the most likely tumor? - Aneurysmal bone cyst (could be)

51- Not caused by poor mineralization of the bone - osteoporosis.

52-Patient with L1 fracture after car accident, the most common accompanied fracture - basal skull fracture.

53- What is the mechanism of chance fracture of the spine - flexion-distraction injury (seatbelt fx)

54- Patient with L2/L3 disc herniation, which of the following physical signs will not be present? Positive straight leg raising test.

55-Simple transverse fracture of humerus shaft, what is the most likely mechanism? - direct falling on a step.

56-Distal radial fracture in the growth plate, which of the following is associated with the best bone remodeling? - Fracture is in sagittal plane.

57-A 15-week-old female child with a positive family history of DDH, delivered as breech, X-ray showed acetabular index of 27 and 29 in both hips, what to do? - Reassurance that there is no hip pathology.

58-True about Perkin's line - Used to diagnose subluxation and dislocation.

59-First movement to be affected in frozen shoulder - External rotation.

60-Patient with features of $O M$, what is the best modality to diagnose the condition? - MRI.

61-Most common presentation of post-operative infection? - Pain.

22-Patient with total knee replacement, presented with infection after three months, the most likely causative organism is Staph. epidermidis.

63-The most common bone to overgrow after amputation - Humerus.
-Basketball player developed immediate swelling of the medial knee after a rebound fall, what is the structure most likely to be injured - ACL.

65-Most common structure to be injured in lateral tibial condyle avulsion fracture is - ACL.

66-True about meniscus injury - Positive McMurray test (there was a description of the test, not its name).

67-True about club foot -

68-A patient with disc herniation and signs of sciatica, what is the most likely finding that will support you to continue nonoperative management - Straight leg raising test of 40 degrees.

69-A patient with nerve injury, loss of sensation over the first web space, which of the following findings will also be present? - wrist drop .
-Most reliable sign to diagnose septic arthritis over transient synovitis (Kocher criteria) - Inability to bear weight.

71-The fracture that is most likely to indicate child abuse is - spiral fracture

72-A question about Monteggia fracture -

73-A 50-year-old man with inability to extend his thigh, what is the most likely structure to be injured in the extension apparatus? - Quadriceps tendon rupture.

74-A question about ACL -

75-True about in-toeing - (to remember : toe gait = Equinus gait $\gg$ due to plantar flexor contracture or short leg)

76-Origin of osteoclast - Hematopoietic stem cells.

77-One of the following is associated with anatomical reduction and absolute stability - Lag screws.

78-Patient with pelvic fracture and chest injury, what is the most likely cause of early death? - Hypovolemia (most likely)

79-Which of the following is associated with the highest risk of DVT? - Emergent lower limb surgery (the others were elective surgeries and surgeries in the UL).

80-Which of the following is present on the posterior aspect of the femur? - Pectineal line.

81-True about ulnar nerve injury - Clawing is caused by loss of lumbricals function.

82-Pointing index sign is associated with - Median nerve injury.

## 2018

84- The most important index for DDH diagnosis - acetabular index

85- Mostly seen in a child above 3 years with bilateral DDH - wide perineum

86- Best remodeling in a distal femur fracture of a 1-year old child - 25 degree angulation posteriorly

87- Correct about prognosis for remodeling for pediatric fractures - proximal humeral fractures have better remodeling than distal humerus

88- A man with distal humerus fracture and loss of sensation over dorsal surface of first web space, will mostly be unable to extend his middle finger (MCP drop)

89-The most likely complication of a femoral neck fracture treated with emergent ORIF - osteonecrosis .

90- Most likely complication of intra-articular fractures - joint stiffness

91- Most commonly associated injury in high-energy pelvic trauma - urethral injury.

92- A draining sinus seen after one year of ORIF surgery to a fractured tibia, most likely cause $\rightarrow$ S epidermidis.

93- Most important indicator of septic arthritis $\rightarrow$ positive culture

94- Most commonly affected tendon in impingement syndrome $\rightarrow$ supraspinatus

95- Correct about talipes equinovarus $\rightarrow$ congenital foot deformity with cavus, adductus, varus and equinus

96- Correct about pediatric foot $\rightarrow$ rocker bottom feet are associated with congenital vertical talus

97- Not a cause of in-toeing $\rightarrow$ pes planus

98- Antibiotics used in a llla grade open fracture $\rightarrow$ augmentin + gentamicin

99- Most common shoulder dislocation $\rightarrow$ anterior inferiorly .

100- Most likely a complication of anterior dislocation in a 20-year old $\rightarrow$ Bankart lesion .

101-True about idiopathic scoliosis $\rightarrow$ a 3D deformity with right thoracic curve

102- Not normally seen in idiopathic scoliosis $\rightarrow$ asymmetric abdominal superficial reflex

103- patient with Femur fracture \& hypotension, bradycardia and priapism $\rightarrow$ neurogenic shock

104- Most important in primary survey in case of vertebral fracture $\rightarrow$ careful transportation

105-75 year old woman with acute lumbar, localized back pain of 1 week aggravated by movement in all directions. History of COPD - vertebral fracture

106- Hyperextension, non-contact, pivoting lower limb trauma with acute hemarthrosis - ACL tear

107- Non-contact, after a jump lower limb trauma with delayed effusion $\rightarrow$ medial meniscus tear

108- Deduct in lateral femoral facet and medial patellar cartilage, positive test $\rightarrow$ apprehension test

109- Predisposes for lateral maltracking of patella $\rightarrow$ increased $Q$ angle OR weak vastus medialis .

110- In isolated medial longitudinal ligament injury of the knee, positive $\rightarrow$ valgus stress at 30 degrees

111- Least force is created in $\rightarrow$ fast concentric contraction (mostly)

112- Iliopsoas undergoes concentric contraction during - pre swing phase

113- Most likely injury in child abuse - fractures

114- Most articular cartilage of joint is composed of - water

115- Most pain sensitive part of bone - capsule

116- Most common site of osteomyelitis - distal metaphysis of femur ( for children)

117- Most sensitive study of osteomyelitis - MRI

118- Malignant sign on X Ray - wide transitional zone

119- Characteristic of osteoid osteoma - medial proximal femoral wall thickening and sclerosis with a very small radiolucent mass

120- A type of spondylolisthesis without fracture of pars interarticularis $\rightarrow$ degenerative (in facet joint)

121- Nerve affected in L4/L5 spondylolisthesis - L5

122- Most serious complication of posterior knee dislocation - vascular injury

123- Definition of osteoporosis - bone density <2.5 SD than a young woman

## 2016

124- Paraffin: conduction

125- THR rehab, what to avoid: add flex int rotation

126- ACL injury case

127-2ndry healing : cast

128- Osteoclast cause osteolytic lesion

129- fracture with most severe soft tissue injury: segmental Fx

130-pathognomonic to Septic arthritis: positive culture of aspirate

131- Septic hip and tenosynovitis, how to differentiate: inability to bear weight

132- Infx in THR prosthesis within 10 days: Staph aureus

152- Tumor associated with hypercalcemia: MM

134- Dexa scan, T-3.5-osteoporosis

135- Stable to Unstable spinal fractures: kyphosis angle $>30$, pain and paresthesia, more than one vertebrae

136- Spinal stenosis: cauda equina

137- Doesn't cause Angular kyphosis: ankylosing spondylitis

138- To diagnose osteoporosis: DEXA

139- Calcific tendonitis: supraspinatus

140- Degenerative spondylolisthesis: osteoarthritic changes in facet joint (intact pars interarticularis)

141- Not a risk factor for compartment syndrome: low energy injuries

142- Not seen in septic shock: HTN

143- Associated with ulnar tunnel syndrome: ganglion cyst

144 - Pediatric skeleton, wrong: High cancellous bone allows for propagation of fracture.

145- Fixed flat foot not caused by: metatarsus adductus

146- Screening for DDH: pathognomonic clinical

147-Guyon's canal syndrome, the most common cause is : ganglion cyst

148-Positional scoliosis, not seen: 3D deformity on X-ray

149- Contraindication for bone graft: multi-trauma

150- Femur neck fracture increased mortality by : Alzheimer.

151-14 male with knee pain, normal physical and knee X-ray, what next: hip and pelvis X-ray

152- Post THR, with infection, first presenting sign: Pain

153- Poor prognosis fracture:
a- type 1 SH
b- SH type 3 even if repaired and fixated well
c- Supracondylar with angulation

154- Pedestrian hit by vehicle bumper, what is the most likely pattern of fracture seen?
a) Transverse
b) oblique
c) butterfly
d) spiral

Not seen in club foot:

- Pronation of forefoot
- adduction of forefoot
- hindfoot varus
- midfoot cavus


## 2015

157. The most important factor in bone healing is
a. Blood supply
b. Bone contact
c. Stability
158. A fracture was managed with compression plate, the type of healing is:
a. Primary bone healing
b. Secondary bone healing
c. Callus formation
159. Which of the following fractures is most commonly associated with non/delayed union :
a. Humerus
b. Inter-trochanteric
c. Calcaneus
d. Distal tibia
160. Osteoclasts originates from:
a. Osteocytes
b. Osteoblasts
c. Bone marrow hematopoietic cells
d. Chondroblasts
e. Fibroblast precursors

Answer C
161. The last center to ossify of the following is: (mnemonic: CRITOE)
a. Capitulum
b. Radial head
c. External (lateral) epicondyle
d. Trochlea
e. Internal (medial) epicondyle

Answer c
162. A child was presented with knee pain, after distal femur fracture, this $X$-ray belongs to him : your diagnosis is :
a. Salter Harris class I
b. Salter Harris class II
c. Salter Harris class III
d. Salter Harris class IV
e. Salter Harris class V

## Answer; based on picture;(

163. Rocker - Bottom deformity presents most commonly in :
a. Clubfoot
b. Metatarsus adductus
c. Congenital vertical talus
d. Pes Cavus
e. Pes Planus
164. Plantar - flexion muscles are most powerful during which phase :
a. Initial stance
b. Loading response
c. Mid-stance
d. Terminal stance
e. Pre-swing

Answer E
165. Concerning upper limb fractures, the wrong match is :
a. Supracondylar fracture - Ant. Interosseous nerve
b. Shaft of humerus - Radial nerve
c. Shoulder - Axillary nerve
d. Lateral epicondyle - radial nerve
e. Distal radius - Ulnar nerve
166. 30 year old female developed suddenly a back pain, which has only been increasing during the last week during her 3 vacuuming sessions, $\mathrm{P} / \mathrm{E}$ was normal \& no neurological abnormalities, and lab studies were normal , the most appropriate management is :
a. Send her home , bed rest, with re-evaluation after 2 weeks
b. MRI of the spine
c. CT of the spine
d. Physiotherapy
167. An open segmental tibial shaft fracture, 8 cm , with no vascular injury, requiring plastic reconstructive surgery, according to Gustilo classification, it's :
a. Class I
b. Class II
c. Class IIIA
d. Class IIIB
e. Class IIIC
168. The most common fracture in child abuse of the following is :
a. Humerus
b. Spine
c. Tibia
d. Fibula
e. radius

Answer A
169. Sequestrum is:
a. Active bone healing in acute osteomyelitis
b. Active bone healing in chronic osteomyelitis
c. Necrotic segment of bone that form a nidus for infection in chronic osteomyelitis

Answer C
170. 14 year old male, presented with new onset knee pain, no other symptoms, on P/E nothing suspicious, the most appropriate management is :
a. Send him home
b. Knee scan
c. Knee MRI
d. Pelvis \& hip X-Ray
171. 25 year old male, had anterior dislocation while playing handball, the most common complication is
a. Supraspinatus muscle tear
b. Avulsion of the humeral head in the glenohumeral joint
c. Biceps muscle tear
d. Bankart lesion
e. Axillary nerve injury

Answer D
172. Female developed knee pain after contact injury, continued playing, with swelling 24 hours later, on P/E McMurray's was positive (mentioned how it was done, not the name), your diagnosis is :
a. Meniscal injury
b. ACL injury
c. MCL injury
d. PCL injury
e. LCL injury

Answer A

After non-contact injury, a player developed severe pain $\&$ swelling immediately , left the field, your diagnosis is
a. Meniscal injury
b. ACL injury
c. MCL injury
d. PCL injury
e. LCL injury

Answer B
174. All of the following are true about multifragmentary fracture management except:
a. Internal fixation
b. Indirect reduction
c. Anatomic reduction
d.
e.
175. the cell that is responsible for bone matrix deposition is
a. osteoblast
b. osteocyte
c. chondrocyte
d. osteoclast
e. fibroblast

Answer A
176. the most common benign bone tumor is :
a. Hemangioma
b. Bone cyst
c. Osteochondroma
d. Osteoid Osteoma

Answer c
177. 2 year old child presented with hip pain \& fever, with elevated WBC \& elevated ESR, your diagnosis is :
a. Legg-Calvé-Perthes disease
b. Slipped capital femoral epiphysis
c. Septic arthritis
d.
e.
178. All of the following are contraindications for bone graft except:
a. HIV
b. Hepatitis
c. Multi-trauma
d. Alzheimer's disease
e. Malignancy

Mortality from femur neck fracture is in increased mostly with :
a. Dementia
b. $D M$
c. HTN
d. Smoking
e.
180. Which of the following isn't a risk factor for osteoporosis:
a. BMI
b. Age
c. Steroids
d. Alcohol
e.
181. Which of the following X-Ray findings isn't associated with Scoliosis
a. Osteoporosis
b. Lateral curvature of the spine
c.
d.
182. Lytic lesions are most commonly caused by:
a. Multiple Myeloma
b. Metastasis
c. chondrosarcoma
d. osteosarcoma
e. Osteoid osteoma
183. Osteoid osteoma is characterized by which one of the following:
a. The most common primary benign tumor
b. Intermittent pain relieved by rest and NSAIDs
c. Distant metastasis
d.
e.
184. The most common presenting symptom indicating infection in a patient who had TKR is :
a. Fever
b. Pain
c. Discharge
d. Limping
e. Inability to bear weight

Answer B
185. In sciatica , the spinal innervation of bladder is through:
a. L3
b. L3, L4
c. $\mathrm{L} 3, \mathrm{~L} 4, \mathrm{~L} 5$
d. L5, S1,S2
e. S1,S2,S3
(the closest answer is E )
186. A patient developed snuff pain after falling on his hand, the most appropriate management is:
a. No management
b. Imaging
c. Casting only
d. Casting the re-evaluation after 2 weeks with imaging
187. The most common nerve to be injuried in shoulder dislocation is :
a. Radial nerve
b. Brachial plexus
c. Musculucutaneous nerve
d. Long thoracic nerve
e. Axillary nerve

Answer E
188. Trendelenburg's sign is caused by :
a. Superior gluteal nerve
b. Inferior gluteal nerve
c. Peroneal nerve
d. Femoral nerve
e. Obturator nerve

2014

189- what is false about proximal humerus fractures:
a. more in males
b. osteoprotic fracture
c. axillary nerve injury
d. due to fall on outstretched arm
e. increases with age

Answer A

190- which of the following is associated with hypercalcemia?
a. osteosarcoma
b. multiple myeloma
c. osteoid osteoma
d. chondrosarcoma

Answer B

191- All are found in scoliosis EXCEPT
A. breast asymmetry
B. shoulders at different levels or something like that
C. pelvic obliquity
D. true lower limb length discrepancy

Answer.. according to dr.M.Samih's Handout, ALL are found in scoliosis

192- An 8-year old male child presents with a 6 hour history of inability to bear weight and right groin Pain. There was (mentioned in numbers) fever, elevated ESR and elevated WBC. What is the Most likely diagnosis?
a. Perthes' disease
B. slipped capitofemoral Epiphysis
C. septic hip
D. irritable hip

Answer C

193- In scapula fracture, we must do all of the following EXCEPT
A. scapula CT scan
b. ECG
C. cardiac enzymes
d.CXR
e.ABG

Answer A

194- What is the most common cause of osteomyelitis? In newly born infants?
A. streptococcal. (Didn't say group B strept)
c. haemophilus influenza $B$
d. E.coli
E. salmonella

195- What does osteochondroma mean?
A. malignant tumor producing bone
B. malignant tumor producing cartilage
C. benign tumor producing both bone and cartilage
D. benign tumor producing fibrous tissue

196- Most commonly injured ligament in ankle sprain is
a. anterior talofibular ligament
B. posterior talofibular ligament
C. spring ligament
D. deltoid ligament

197- A patient with an open fracture, you shall do all the following as initial management/assessment (or so) EXCEPT
A. give antibiotics IV
B. gives tetanus booster
C. cover with sterile things
D. do angiography
E. splint

Answer D

198-19 year old handball player had shoulder dislocation. What will you recommend him to do?
A. stop playing handball
B. wears something for 3 months and then plays again
C. does surgery because $100 \%$ there will be recurrence
D. back to play when there is no pain

199- The first inflammatory cell to arrive at site of bone healing is:
a-Macrophages
b-polymorphonuclear cells
c-osteoblasts
d-platelets

200- male patient with uncontrolled diabetes, asthma, and on steroids, comes with proximal open Tibial fracture, intact sensation and distal pulses, he is expected to have:
-infection
-malunion
-amputation

Answer A

201- wrong about osteoporosis:
-painful without fracture
-might cause pathologic fractures
-normal ALP
-decreased bone density

Answer A

202- Osteolytic lesion in metastasis of breast cancer, the cell which causes this is:
a- osteoclasts
b-malignant cells
c-histiocytes

Answer A

203- .most common complication of clavicle fracture is:
A.Delayed union
B.Infection
C.Malunion
D.Nerve injury

204- An image showing club foot. All features are present except:
A.Rocker bottom deformity
B.Supination of forefoot
C.Equines
D.Adduction

Answer A

205- Mortality from femur neck fractures is mostly increased by which comorbidity:
a- Dementia
b- HTN
c- DM
d- Smoking
e- CKD

206- In brachial plexus root avulsion, all these muscles are affected except:
A. Supraspinatus
B. Infraspinatus
C.Rhomboids
D. Serratus anterior
E.Trapezius

207- Rehabilitation after THR, what should pt. avoid:

Adduction, flexion, internal rotation

Adduction flexion ext. rotation

Abduction flexion internal

Adduction extension...

208- A pt. had femur neck fracture, fixed with pin and plate or something, he started to complain From muscle pain, all these modalities can be used except:
a-Warm packs
b-Whirlpool
c-Ultrasound
d-Diathermy

209- Patient had total knee arthroplasty, the most common presenting symptom of infection of the Prosthesis is:

Fever

Pain

Discharge

X ray changes

210- Treatment of Osgood schlatter disease:

NSAID

Steroids

Warm packs

Ice packs

Rest and modification of activity

211- Not in acute osteomyelitis:
A.Increased WBC
B.Increased ESR and CRP
C. + ve MRI
D.X ray changes sequestrum

212- Wrong about scheuermann's disease:
a- More in females
b- Presents in adolescence
c- Causes hyperkyphosis
d- Not corrected by hyperextension
e- Causes back pain due to muscle spasm

213- Not a risk factor for disc prolapsed:
a-Active lifestyle
b-Smoking
c-Driving
d-Pregnancy

214- Not a cause of compensatory scoliosis:
a- Leg length discrepancy
b- Lumbar disc prolapsed
c- Non-aligned pelvis
d- Duchenne muscular dystrophy

215- A young boy presents with bilateral mild bow leg deformity, you reassure the parents and tell them not to worry mainly because the condition is:
a- Symmetrical
b- Not suspected at this age
c- Localized
answer: a

216- Acute respiratory distress is most commonly associated with which fracture:
a- Humerus fracture
b- Femur shaft fracture
c- Metatarsal fracture

217- Wrong about DDH:
a-the mode of delivery is of more importance as a risk factor than the presentation
b- prematurity is a protective factor
answer: a

218- one of the following is not seen in a boy fell on his extend wrist:
a-clavicular fracture
b-radial head fx
c-flexion supracondylar fracture

219- The dorsal ganglion is located in :
a-Scapholunate
b- Dorsal capsule or something

## 2013

1. Child abuse.....>
different stages of healing.
2. Antalgic gait-->
short stance phase in the affected side
3. Most common complication of amputations in immatures...
terminal overgrowth!
4. Osteolytic lesion in spine $\rightarrow$
breast CA
5. Boy in football game, with knee pain and normal exam:
A. knee MRI
h. Hip X ray

Answer: a
6. In hypovolemia:
a.ringer lactates
b.Packed RBCs

Answer: A
in osteoporosis:
intertrochanteric fracture
8. All biological healing in fracture except??
A. immobilization
B. nerve injury
C. vascular injury
9. Doesn't cause calcaneal fracture?/ does not associated with calcaneal fracture
a. Clavicle
h. SI joint
c. Skull base

Answer is A
10. 60 year old female. with sever knee pain and on analgesia \& not respond .. with duodenal ulcer ? next step
--> total knee replacment
11. anti- healing: cortisone.
12. Scoliosis more than 20 degrees in a 15 year old girl:
A. observation
B. brace
13. A boy has a deformity in long bone (or something), all indicates pathological etiology except:
A. symmetrical involvement
B. local lesion
C. rapidly growing
D. not associated with age
14. Open fractures:
A. higher grade in operation room
15. Painful scoliosis, Which tumor:
A. osteoid osteoma
B. osteosarcoma
C. giant cell tumor
d. aneurysmal bone tumor
16. Mcc of OM in Sickle cell:
a. GBS
b. salmonella
c. E.coli
d. Klebsiella
17. Osteomyelitis, adult age group, most common in:
a. Spine
18. Septic hip in children... Except:
a- Fever
b- Refuse to walk
c- History of recent URTI
d- A high erythrocyte sedimentation rate (ESR)
e-A white blood count greater than 12,000
19. X-ray $\rightarrow$ left hip dislocation.
20. First thing affected on median nerve injury:
A. motor
B. temperature
C. fine touch
D. pressure
E. vibration

1. Left femur tumor with lytic lesion and hypercalcemia $\rightarrow$ Multiple myeloma
2. Bone scan advantage in tumors $\rightarrow>$ finds other osseous disease foci
3. warm packs... heat transfer is by:
A. conduction
B. convection
C. radiation
4. Boy presented with recurrent dislocation of the shoulder:
a. elderly
b. young
C. trauma injuries
D. sport injuries
E. RTA's.

Osteoarthrosis of the knee, wrong:
A. periarticular osteopenia
B. cyst
C. subchondral sclerosis
D. osteophyte
E. narrow space joint

Answer is A
26. Earliest sign in compartment syndrome
A. pain on stretching muscles
B. change of skin color
C. diminished pulses
7. Hallux valgus deformity, surgical indication :
pain
28. Fracture associated with delayed or nonunion:
colles fracture.
29. Empiric treatment in a child with osteomyelitis:

Vancomycin, Ciprofloxacillin, erythromycin
30. Boy with perthes, 57 years old, pain resolved with analgesics, which of the following is a prognostic factor: a.response to analgesics
b.degree of femoral head collapse
c.gender
d.date
e.education
31. Contraindication to spinal anesthesia:
a.coagulopathy
B.L3/L4 spinal surgery
c.pregnancy

Answer is A
32. lumbricals \& interossei:
flex the fingers at the MCP \& extend them at interphalangeal joints.

## 2012

1- 20 year old male was playing football and had a non-contact sudden severe knee pain while playing and could not continue. the injury is most probably at:
a- medial meniscus
b- lateral meniscus
c- anterior cruciate ligament
d- posterior cruciate ligament
e-chondral injury

2- secondary osteosarcoma, can be 2ry for all of the following except:
a-osteoid osteoma.

3- most important surgical indication for SCFE is:
a- pain
b- limping
c- correct malformation
d- correct leg discrepancy
answer B

4- wrong about nursemaid (pulled elbow):
occur with traction to flexed arm.

5- clawing hand
a- MCP hyperextension- PIPJoint flexion - DIP Joint flexion

6- kienbock's disease all true except:
a- type of AVN of lunate bone
b- age 40-50
c- ass.with osteoarthritis of the wrist

7- Rheumatoid arthritis, wrong one:
a- involve DIP

8- Club foot, method of treatment:
a- fibular shortening
b- Navicular medial subluxation

C- wt. bearing AP20>
d- ponseti surgery

9- patient with ankle trauma and healed ,but on internal fixation in the past. now she have osteoarthritis with severe daily restricting ..management:
a- arthrodesis
b- total ankle arthroplasty
c- hemiarthroplasty

Answer: A

10- For a total hip replacement posterior approach, the pt must avoid:
a- flexion, adduction, internal rotation.

11- Rehabilitation guidelines following total knee replacement (one true):
a- allowed to drive after 6 weeks post op
b- Can do low impact sports like tennis, football..
c- Repetitive passive extension for the knee...
d- Not weight bearing for one week

Answer: A

- Most common site for osteosarcoma:
a- distal femur

13-wrong about open fracture:
a- m.c at radius and ulna
b- tissue viability is most important prognostic factor

14- most common fracture to be corrected surgically:
a- proximal femoral fracture
b- proximal humerus fracture

Answer A

15-wrong about structural scoliosis:
a- always ass.with bone and skeletal abnormality
b- there is a lump at a concave side in the thorax
c- don't change with change in position
d- may increase in severity with growth

16- Scoliosis measured by:
a- Cobb's angle

## 17- Hangman fracture:

a- There are a fracture of both pedicles
b- Occur with hyper flexion
c- Don't affect the spinal cord

8- Not risk developing osteosarcoma:
a- osteoid osteoma
b-Chronic osteomyelitis

19- All can cause knee pain in an adult except:
a- osteochondritis dissecans
b- hypoplastic patella

Answer B

20-hot bags:
a- radiation
b- conduction
c- convection

21-Indication for hand internal fixation .... all true except:
a- comminuted fracture
b- compound fracture
c- tendon interrupted between the fracture
d- muscle interrupted

22-- bone grafting...., all true except:
a- fresh fracture
b- old fracture
c- fill cavity
$d$ - fill the gap
e- lengthening of long bone but not small one

23- The defect in osteogenesis imperfecta:
a- abnormal cross linking in collagen
b- at the level of DNA
c- defect of hydroxylation
d- defect of glycosylation
e- defect of procollagen

Others ( extra fun (:)

One is true about slipped epiphysis:
a- Usually due to trauma
b- Limbs is internally rotated
c- 70\% are of acute onset
d- X-ray is necessary

2- One is false about medial meniscal tear:
a- Usually no immediate swelling
b- Due to twisting
c- Locking
d- May cause osteochondritis if not treated

3- Muscle responsible for knee movement during heel strike:
a- Hamstring
b-Calf muscle

## c- Quadriceps

d- Gastrocnemius

4- Nerve injury in the axilla which is first nerve to be recovered:
a- Ulnar
b- Radial
e- Median
d- Three together
e- Variability of predilection

5- After peripheral nerve injury, steppage gait and loss of eversion of the big toe, there is:
a- Femoral
b- Peroneal
c- Tibial
d- Sural

6- One muscle is not attached to bone:
a- Lumbricals
b- Palmer interossei
c- Dorsal interossei
d- Adductor pollicis brevis
e- Flexor digiti minimi brevis

7- Most common bone to be affected With osteoporosis:
a- Femur
b- Vertebra

8- One is correct about osteoporosis
a- Biochemistry is not normal
b- Can cause spontaneous fracture
c- Dietary treatment is helpful
$d$ - Splintage is effective

9- The fracture in children that need operation:
a- Femur shaft
b- Femur neck
c- Bilateral forearm fracture
d- Tibia
e- Humerus

10-One is false about scaphoid fracture:
a- Clinical diagnosis is important
b- Leads to avascular necrosis
c- X-ray is diagnostic early

11-In hand injury one is false:
a- Early operation
b- Elevation for edema
c- Primary care for bone before skin

12-Most important substance for bone growth is:
a- PTH
b- Thyroxin
c- Androgen
d-Cortisol
e-Citrate

13-One does not have risk of malignancy:
a- Olier's disease
b- Osteoclastoma
c- Amyloidosis
d- Multiple enchondroma

14-The most important slow growing killing tumor is:
a- Chondrosarcoma
b- Ewing's sarcoma
c- Malignant synovium
d- Osteosarcoma
e- Rhabdomyosarcoma

15 -Which is wrong about 2 ry bone tumors:
a- Hematogenous spread
b- Thyroid cancer is the most common $2 r y$
c- They may present with pathologic fractures

16- Which Is incorrect about septic arthritis:
a- Mostly caused by staph pyogenes
b- Can cause necrosis and destruction of bone
c- Cold lesions on bone scan has good prognosis

17- Which Is more likely diagnosis for 45 year old male with 2 ry hx knee pain that's relieved by walking around:
a- Osteomalasia
b- Osteoporosis
c- Osteoarthrosis
d- Osteochondroma
e- Osteopetrosis

18-All can cause knee swelling except:
a- Osteoarthrosis
b- Osteochondritis dissecans
c- Prepatellar bursitis
d- Synovial chondromatosis
e- Peripheral meniscal tear

19-All are cardinal signs for inflammation as described by Celsius except:
a- Color
b- Rubor
c- Tumor
d- Dolor
e- Loss of function

20-Which Is incorrect about osteoid osteoma:
a- Can cause scoliosis
b- Causes pain worse at night and relieved by antidepressants
c- Can result in limb length discrepancy

21- All are supplied by ulnar nerve except:
a- Hypothenar
b- Adductor pollicis
c- All interossei
d- Ulner 2 lumbricals
e-Superficial head of flexor pollicis brevis

22- Sprain for anterior talofibular ligament is due to:
a- Inversion
b- Eversion
c- Planter flexion and inversion
d- Dorsiflexion and eversion
e- Dosriflexion and eversion and pronation

23- All are true about osteochondritis dissecans except:
a- More common in young adults
b- Trauma is the cause
c- Most common site is the lateral part of medial femoral condyle
$d$ - More in convex surfaces
e- Trochlea of elbow can be involved

24- Which Is not true about osteochondritis dissecans:
a- The most common cause for loose bodies in young adults
b- Calcaneal apophysis could be Involved
c- Anteromedial comer of talus can be involved
d- When it occurs this is crtain that the cancer returned

25- All are true about subtrochanteric fracture except:
a- Extracapsular
b-More in young adults
c- Commonly comminuted
d- Can be cause by malignancy

26- All are true about supracondylar humeral fracture except:
a- Distal fragment is displaced anteriorly
b- Can result in nerve injuries
c- Compartment syndrome is common

27- All are true about metatarsus adductus except:
a- Metatarsal are medially rotated over cuneiforms
b- Presents in the first year of life
$c$ - Found in congenital vertical talus
d- The most common congenital foot deformity

28- All are true about Perthes disease except:
a- Rare in blacks
b- Bilateral in males 7:1 females
c- Present mostly at 4-8 years

29- All can cause back pain in children except:
a- Spondylolisthesis
b-Idiopathic scoliosis
c- Spinal cord tumors
d- Discitis
e- Eosinophilic granuloma

30- One is true about normal gait cycle:
a- Swing phase is longer than stance
b-20\% double support
c- Hamsring is the most important for midstance

31- All are correct about use of ice packs in soft tissue injury except:
a- Applied for 20-30 min
b- Freq Q 2-4 hours
c- Total period of 5-7 days
d- Not applied directly on skin
e- Needs also compression

32- The most important step in rehabilitation after THR is:
a- Muscle stretching
b- Muscle strengthening
c- Muscle reeducation
d- Sensory reeducation

33- All are true about meniscal injury except:
a- Diagnosis can be made even in absence of clinical signs
b- Medial meniscus is the most commonly injured

34- All are true about aneurysmal bone cyst except:
a- Cortical thinning
b- Metastasis
c- Air fluid level

35- All can cause frozen shoulder except:
a- DM
b- Antiepileptica
c- Dupuytren's disease
d- Hyperlipidemia
e- Repeated shoulder dislocations

36- All can be found in late diagnosed DDH except:
a- Femoral anteversion
b- Femoral head and neck in vulgus
c- Dysplastic acetabulum
d- Delayed ossification of femoral head epiphysis
e- Fibro Fatty substance in hip joint

37- All are true about shoulder dislocation except:
a- Post dislocation is the most common
b- Avulsion of greater tuberosity can result
c- Results from fall on outstretched hand

38- Which is not true about tibial shaft fracture:
a- Ankle stiffness is uncommon
b- Foot lies outwards
c- Compartment syndrome is common
d-Common in young

39- The most common site for volar ganglion at the wrist is:
a- Between flexor carpi radialis and abductor pollicis longus at scaphotrapezoid joint

40- Which is incorrect about compartment syndrome:
a- Weakness in muscles of compartment
b- Tight skin
c- Present pulses doesn't rule it out
d- More in closed fractures
e- No compartment syndrome in arm fracture as a rule

41-A child victim of RTA with femoral shaft fracture and shortening what's the best treatment:
a- Skeletal traction
b- Skin traction
c- ORIF (open reduction and internal fixation)
d- External fixation

42- All true about cubitus valgus except:
a- This ugly deformity worsens when the elbow is flexed

43- The best $x$-ray view for anterior column acetabular fracture is:
a- AP view
b- Obturator oblique view
c- Inlet view

44- Which Is incorrect about myelomeningocele:
$a-M>F$
b- Mostly lumbar
c- Due to environmental and genetic factors
d- Associated with Arnold-Chiari malformation type II in 100\% of cases
e- Can occur due to carbamazepine treatment during pregnancy

45- All can be associated with lumbar canal stenosis except:
a- Old age
b- Restricted spinal flexion
c- Spinal claudications
d- Back pain radiating to LL

46- All are indicators for surgery for disc prolapsed except:
a- Urinary retention
b- Neurological signs
c- Failure of medical treatment
d- Intermittent claudications
e- Severe scoliosis

47- One is false about chronic osteomyelitis:
a- Bacterial usually found
b- May cause amyloidosis
c- Usually hypodense with thin cortex
$d$ - Surgery is required

48- One is false about understanding infection in children:
a- Intercostals artery supplying two vertebra
b- Some bones are intracapsular
c- Thick periosteum
d- Persistence of metaphyseal vessels for 5 years

49- One is false about clubfoot:
a- Vertical talus
b- Inversion of hind foot
c- Supination
d- Adduction
e- Tight tendo Achilles

50- One is false about flat foot:
a- May occur in rickets
b-Causes severe pain after walking
c- There is 5 arches
d- May required correction
e- Associated with vertical talus

51- Most important feature for prosthesis is:
a- Cosmetic
b- Functions well
c- Cost

52- One is false about rotator cuff syndrome:
a- Mostly infraspinatus is involved

53- Drop arm affect in:
a- Complete rotator cuff tear
b- Calcified supraspinatus tendon
c- Fracture of coracoid process

54- One is false about Perthes disease:
a- Age usually 4-8 years
b- Severe and continuous pain
c- Increase density is an early feature on X-ray
d- Lateral subluxation is bad prognosis

55- Bilateral intermittent claudication is caused by all except:
a- Low spinal tumors
b- Vascular injury
c- Vertebral osteoma
d-Central disc prolapses
(Not sure about it )

56- One will differentiate minor from major causes:
a- Bending test
b- X-ray

57- One is not differential diagnosis for cystic bone lesion (small bone):
a- TB
b- Sarcoidosis
c- Prostatic neoplasm
d- Hyperparathyroidism
e- Sickle cell anemia

58- The nerve to be injured in cubitus valgus:
a- Ulnar nerve
b- Median nerve
c- Radial nerve

59- The view used to diagnose anterior acetabular fracture:
a- Tangential
b-Oblique
c- Lateral view
d- Inlet view

60- One is not assign of osteosarcoma:
a- Sun rays appearance
b- Egg shell appearance
c- Calcification
d- Codman's triangle
e- Honeycomb

61-Regarding clavicle what's false:
a- Union between medial end and the rest ossification center occurs between 13-25 years old

62- On pelvic fracture what's wrong:
a- Injuries of the pelvis $\qquad$ are more dangerous than the associated soft tissue injury

63- In pelvic fracture the most dangerous immediate complication is:
a- Hemorrhage

64- Most common site of osteochondritis dissecans:
a- Medial Femoral condyle

65- False about osteochondritis dissecans:
a- More common in elderly

66- Best treatment for osteoporosis is:
a- Bisphosphonate

67- Best treatment for femoral shaft fracture:
a- Internal fixation

68- The first bone to ossify in the carpal bones is the:
a-Capitates

69- The muscle inserted in tn the bone of the 5th metatarsal bone is:
a- Peroneus brevis

70-Most common tumor in hand is:
a- Enchondroma

71- False about humeral supracondylar fracture:
a- Rarely associated with nerve and vascular injury

72- True about shoulder dislocation:
a- Axillary nerve injury

73- False about ankle injuries:
a- Most common in 3rd degree-complete tear of the lateral collateral ligament

74- False about meniscal injury:
a- Best treatment is total meniscectomy

75- Inorder to prevent the most important complication that results in the majority of deaths in spinal injury, you should order:
a- Respiratory therapy

76- Regarding effusions, what is false?
a- Gout doesn't cause significant effusion

77- All are indication; for fasciotomy, except:
a- Nerve impairment
b- Arterial / venous ligation
c- Prolonged ischemia (> 6hours)

78- False about compartment syndrome:
a- Damage is not caused by ischemia of muscle

79- Most common fracture in elderly women is in the:
a- Vertebra

80- Fractures in children, what is true?
a- The closer to the growth plate, the better the healing
b-The closer to the growth plate, the smaller is the callus
c- Those with heel injury have better healing

81- Giant cell tumor all except:
a- More common in females
b- Occur in epiphyseal metaphyseal junction
c- Rare mets. To lung
d- X-ray usually increase bone density
e- Recurrence is common after curettage

82- All should be present in prosthesis except:
a-Safe
b- Affordable
c- Very light
d-Cosmetically accepted
e- Functional

83- The point that lead the surgeon to be not very concerned about level of amputation:
a- Development of prosthesis
b- Education of patient
c- Better diagnosis of disease

84- Osteosarcoma all except:
a- Sunburst appearance
b- Sub-periosteal new bone formation
c- Tumor cells may be perforate the cortex
d- Lung mets. Via hematological pathway
$e$ - Usually invade the growth plate
(All are correct .. They answered it E , Not sure about it )

85- Chondrosarcoma except:
a- Grows very rapidly
b- Radio- resistant

86- One increase bone healing:
a- Tensile force
b- Compression
c- Shearing force

87- All are found in the histology of growth plate except:
a-Resting chondrocytes
b- Proliferating
c- Maturing
d-Calcified
e-Superficial and tangential layer of chondrocyte

88- All are cause for delayed and nonunion except :
a- Extensive gap
b- Infection
c- Metabolic
d-Abnormal biomechanics
e- Sufficient immobilization

89- Transient synovitis of the hip characterized by all except:
a- Self Limiting acute disease of the hip
b- Lab Ix: increase ESR, CRP with increased titer of staph aureus in blood
$90-$ One is false about loose bodies:
a- Hx of locking
b- Almost always symptomatic
c- Usually seen in x-ray
d- May be caused by osteochondritis dissecans

91- Osteomyelitis one is false:
a- Usually due to strept infection

92- Most common disability in poliomyelitis in Jordan:
a- Hip disability
b- Drop foot
c- Affect thoracic muscles
d- Thoracic kyphoscoliosis

93- Spondylolisthesis all except:
a- More in males
b- Degenerative type usually more than 30 years
c- Degenerative type most commonly in L5 S1
d- Lytic / isthmic rtype is due to fracture on pars interarticularis
(Not sure about it )

94- Most common cause of kyphosis in0-10 years:
a- Hemivertebra
b- Juvenile TB
c- Apophysitis

95- Most common disability in poliomyelitis in Jordan:
a- Hip disability
b- Drop foot
c- Affect thoracic muscles
d- Thoracic kyphoscoliosis

96- Osteoarthritis all true except:
a- Increased bone formation
b- Loss of cartilage
c- Capsule usually NL
d- Treatment should be relieve pain, increase motility and decrease load

97- Chondromalacia patella all true except:
a- Hemarthrosis
b- Locking
c- Anterior knee pain

98- Meniscus tear all except:
a- Best diagnosed by arthrography
b- Some time present with knee swelling
c-- Peripheral tear has better prognosis

99- Flat foot all except:
a- Short tendo achilles
b- Hallux valgus later on

100- The muscle that contracts intermittently during standing is:
a- Quadriceps
b- Hamistring
c- Solicus
d- Anterior tibialis
e- Posterior tibialis

101- All are characteristic for scaphoid fracture except:
a- Occur due to hyperextension with radial deviation
b- May only be seen in oblique view
c- Usually arms looks NL
$d$ - The proximal segment may undergo necrosis
e- Usually in children

102- Swan neck deformity all except:
a- MCP joint is hyperextended
b- DIP joint is flexed
c- Can occur due to intrinsic muscle disease
d-Can occur due to flexor sublimis
e- Can occur due to central slip of extensor digitorum

103- Most important in bone healing is:
a- Clot organization
b- Immobilization
c- Good alignment

104- A 7 year old child with 6 months old fracture of femur that healed with $30^{\circ}$ rotation management should be:
a- Surgery
b- Hip spica
c- Plaster of paris

105- All fractures in children has ability of remodeling except:
a- Neck of femur
b- Epiphyseal separation (through growth plate of tibia)
c- Fracture of mid ulna
$d$ - Fracture of mid of femur

106- One would undergo avascular necrosis if not treated properly:
a- Capitellum fracture
b- Olecranon fracture
c- Lateral condyle fracture
d- Supracondylar fracture

107- One true about management of cerebral palsy (most effective):
a- Tenotomy
b- Muscle shortening
c- Close observation in hospitals
d- Home physiotherapy

108- Anterior humeral line should pass through:
a- Middle third of capitulum

109- One will lead to avascular necrosis of humeral head:
a-Surgical neck fracture
b- Anatomical fracture
c- Surgical neck fracture + avulsion of grater tuberosity

110- Poliomyelitis can lead to one deformity:
a- Knee flexion
b-Equines
c- Structural scoliosis

111- Scoliosis undergo rapid deterioration during:
a- After menopause
b- Infantile scoliosis
c- Juvenile scoliosis
d- At puberty between budding of breast and menarche

112- Acute supra spinator calcification except:
a- Joint movement is NL during acute phase
b- Usually improve in few days
c- Due to decrease blood supply (ischemia)

113- Osteochondritis dissecans all except:
a- Due trauma
b- Usually lateral condyle is affected
c- Usually affect young males

114- Perthes disease except:
a- Bone scan is useless
b- Usually no pain
c- Lateral subluxation is poor prognosis

115- Slipped upper epiphysis except:
a- Females> males
b-70\% gradual onset
c- Lateral view is important in diagnosis
d- Limbs is extemally rotated

116- Most common cause of kyphosis in 0-10 years:
a- Hemivertebra
b- Juvenile TB
c- Apophysitis

