1. A 28-year-old female athlete presents with knee instability and pain after a sudden pivot during a soccer match. An MRI reveals an ACL tear, and she is considering surgical options. She wants to understand the differences between single-bundle and double-bundle reconstruction techniques. **What anatomical feature distinguishes the tibial attachment of the ACL?**

A. Straight cylindrical shape without attachments
B. Flat ribbon-like appearance with no curvature
C. C-shaped structure surrounding the lateral meniscus
D. J-shaped configuration with multiple branches
E. Rod like appearance in connection with Lateral tibial eminence
Answer: C

2. In which position does the ACL lie when the knee is fully extended?
   A. The ACL lies at a 45-degree angle.
   B. The ACL lies vertically in the sagittal plane.
   C. The ACL lies horizontally in the sagittal plane.
   D. The ACL is positioned diagonally across the knee joint.
   E. The ACL lies at a 60-degree angle
   Answer: B

3. A 28-year-old female athlete presents with knee instability after landing awkwardly during a jump. She reports feeling a pop in her knee and experiences swelling. MRI shows damage to the anterior cruciate ligament (ACL). **What structural feature differentiates the double-bundle theory from the ribbon-like concept of the ACL?**
   A. Presence of distinct bundles within the ACL
   B. Elasticity of the ligament under stress
   C. Shape of the femoral attachment
   D. Thickness variation along its length
   E. Shape of tibial attachment
   Answer: A

4. All the following are risk factors for limitation of motion of knee after ACL reconstruction except:
   A. Graft placement anterior to native ACL insertion on the tibia results in impingement on the roof of the intercondylar notch in extension.
   B. Medial placement on the tibia produces impingement on the lateral wall of the intercondylar notch
   C. Placement too far anteromedially has been shown to limit flexion
   D. On the femoral side, the most common error is graft placement too far anterior which causes excessive strain on the graft
   E. Impingement of the ACL graft on the PCL also may limit flexion when the angle of the tibial tunnel is too steep (80^{0})
   Answer: B

5. In the setting of revision ACL reconstruction, which of the following would place patient at the highest risk for another re-rupture?
   A. Femoral tunnel widening = 11.5 mm
   B. Posterior tibial slope = 13°
   C. Posterolateral corner reconstruction at time of primary ACL reconstruction
   D. Use of contralateral BTB autograft
   E. Use of transtibial drilling technique
   Answer: B

6. Which of the following best describes the primary anatomical abnormality in Cam-type femoracetabular impingement (FAI)?
   A. Excessive growth of the femoral head causing a flattened or nonspherical appearance
   B. Excessive bone growth at the acetabular rim, leading to overcoverage of the femoral head
   C. Narrowing of the femoral neck leading to instability in the hip joint
   D. Excessive bone formation on the greater trochanter causing soft tissue impingement
   E. Reduced depth of the acetabular socket leading to hip dysplasia
   Answer: A

7. Which type of movement typically exacerbates symptoms in a patient with FAI?
   A. External rotation and abduction of the hip
   B. Internal rotation and flexion of the hip
   C. Hyperextension of the hip joint
   D. Adduction and full extension of the leg
   E. Circumduction of the hip
   Answer: B

8. Which of the following is most likely to result in Pincer-type femoracetabular impingement?
   A. Retroversion of the acetabulum causing overcoverage of the femoral head
   B. An excessively flattened femoral head due to abnormal bone growth
   C. Anteversion of the acetabulum leading to reduced hip joint stability
   D. A shallow acetabular socket causing increased joint laxity
   E. Shortening of the femoral neck, increasing contact with the acetabular rim
   Answer: A

9. According to Dejour classification, which type of radiographic sign shows a 'crossing sign, trochlear spur and double contour'?
   A. Type D
   B. Type A
   C. Type E
   D. Type B
   E. Type C
   Answer: A

10. In the context of surgical treatment, which factor is identified as the most predictable for MPFL reconstruction failure?
    A. High Q-angle
    B. Patellar alta
    C. Severe trochlear dysplasia
    D. Chondromalacia patellae
    E. Weak quadriceps
    Answer: C

11. What is the purpose of a Trochleoplasty in patellar instability management?
    A. To improve the TT-TG distance
    B. To reduce the spur
    C. To decrease JRF and improve tracking
    D. To strengthen the quadriceps
    E. To stabilize the patellar tendon
    Answer: C

12. What are stress fractures most commonly caused by?
    A. Repetitive forces with abnormal load on normal bone
    B. Normal forces on abnormal bone
    C. Acute trauma
    D. Infection
    E. Metabolic diseases
    Answer: A

13. Which vitamin level was found insufficient in patients diagnosed with stress fracture ?
    A. Vitamin D
    B. Vitamin B12
    C. Vitamin C
    D. Vitamin E
    E. Vitamin K
    Answer: A

14. Which factor is NOT associated with intrinsic causes of cuff tears?
    A. Age related cuff degeneration
    B. Decreased blood-flow
    C. Subacromial spur
    D. Smoking
    E. Genetic predisposition
    Answer: C

15. Which of the following is true about the progression of rotator cuff tears?
    A. Full-thickness cuff tears typically do not progress in size
    B. An increase in symptoms does not correlate with increase in cuff tear size
    C. Progression of pain is independent of rotator cuff muscle quality
    D. Larger initial cuff tears are likely to progress faster
    E. All asymptomatic cuff tears will eventually become symptomatic
    ANSWER :D

16. An active 68-year-old woman undergoes an uncomplicated rotator cuff repair with a double-row construct using biocomposite knotless anchors. At her two month follow up, she is noted to have increased shoulder pain, weakness and limited motion. Imaging reveals failure of the rotator cuff repair. What is the most likely mechanism of failure?
    A. Anchor fatigue and breakage
    B. Anchor pull out from bone
    C. Suture rupture secondary to anchor eyelet abrasion
    D. Suture pull out from the repaired tissue
    E. Infection
    ANSWER :D

17. What is a typical MRI finding in internal glenoid impingement?
    A. Increased intensity of subscapularis tendon with decreased coracohumeral distance.
    B. Tearing of the posterior fibers of supraspinatus and anterior fibers of infraspinatus.
    C. Medial subluxation of the LHB.
    D. Cystic changes in the greater tuberosity.
    E. Positive Gerber sign.
    Answer: B

18. What is a common clinical presentation indicating subcoracoid impingement?
    A. Diffuse elbow pain
    B. Anterior shoulder pain increasing with arm elevation and rotation
    C. Reduced arm abduction capability
    D. Localized wrist pain
    E. Diffuse neck pain
    Answer: B

19. What distinguishes a secondary impingement from a primary impingement in the context of shoulder movements?
    A. Caused solely by bone spurs
    B. Always requires surgical intervention
    C. Secondary impingement relates to improper centering of the humeral head during movement
    D. Exclusively affects posterior shoulder
    E. It only occurs in the elderly
    Answer: C

20. What is a Bankart lesion specifically associated with?
    A. Inferior GHL tear
    B. Superior GHL tear
    C. Anterior inferior labrum detachment
    D. Posterior labrum detachment
    E. Medial scapular periosteum avulsion
    Answer: C

21. What is the purpose of Latarjet procedure in shoulder stabilization?
    A. Reducing posterior shoulder instability through muscle reorientation.
    B. Stabilizing superior labral tearing resulting from excessive rotation.
    C. Reconstructing fractured humeral head to regain range of motion.
    D. Addressing bony deficiencies by increasing glenoid track and stabilizing joint.
    E. Repairing torn rotator cuff to restore normal shoulder movement.
    Answer: D

22. What is a characteristic of an engaging Hill-Sachs lesion?
    A. Unable to cause instability due to its posterior position alignment.
    B. Oriented vertically in neutral position, reducing engagement risk.
    C. It aligns with the long axis of the glenoid rim in abduction and external rotation.
    D. Covered entirely by glenoid during humeral head's circular motion.
    E. Positioned diagonally making it less prone to anterior contact.
    Answer: C

23. Which of the following is NOT a cause of recurrent anterior shoulder instability?
    A. Capsulolabral insufficiency
    B. Traumatic injury like Bankart lesion
    C. Muscle imbalance and weakness
    D. Regular swimming workouts
    E. Bone loss such as glenoid bone loss
    Answer: D

24. Which condition would most likely require a Reverse Shoulder Arthroplasty (RSA) rather than a Total Shoulder Replacement (TSR)?
    A. Presence of intact rotator cuff muscles and adequate glenoid bone stock
    B. Arthritis with sufficient stabilizing and motor function of muscles
    C. Rotator cuff arthropathy with deficient rotator cuff integrity
    D. Anatomic restoration of capsular tension and normal bone morphology
    E. Acute trauma with intact posterior rotator cuff function
    Answer: C

25. In the provided context, for which condition is Total Shoulder Replacement (TSR) deemed unsuitable?
    A. Isolated glenohumeral arthritis with intact surrounding structures
    B. Severe rotator cuff dysfunction
    C. Minor discrepancies in glenoid version
    D. Ample availability of stabilizing capsular tissue
    E. Adequate humeral head retroversion alignment
    Answer: B