



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)
MAIN CAMPUS
UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR
SECOND YEAR, SECOND TRIMESTER EXAMINATIONS
FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN PHYSIOTHERAPY**

COURSE CODE: BSP 227

COURSE TITLE: ORTHOPEDICS & TRAUMATOLOGY I

DATE: TUESDAY 11TH APRIL 2023

TIME: 8:00-10:00 AM

INSTRUCTIONS TO CANDIDATES

Answer all Questions

Sec A: Multiple Choice Questions (MCQ) 60 Marks

Sec B: Short Answer Questions (SAQ) (40 Marks)

Sec C: Long Answer Questions (LAQ) (40 Marks)

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.

SECTION A: SHORT ANSWER QUESTIONS

20 MARKS

1. Fracture involving which part of humerus can cause delayed ulnar palsy:
 - A. Shaft.
 - B. Surgical neck.
 - C. Medial epicondyle.
 - D. Lateral epicondyle.
2. The carpal bone most commonly fractured is:
 - A. Triquetrum.
 - B. Hamate.
 - C. Capitate.
 - D. Scaphoid.
3. Which nerve is compressed in carpal tunnel syndrome?
 - A. Ulnar.
 - B. Median.
 - C. Radial.
 - D. All of the above.
4. Malunion of a fracture is;
 - A. a fracture which unites in a position of deformity
 - B. delayed union of a fracture
 - C. non-union of a fractured followed by pseudoarthrosis
 - D. due to tuberculosis
5. Volkmann's contracture is;
 - A. affects the palmar fascia
 - B. develops at the ankle in a case of chronic venous ulcer
 - C. follows ischemia of the forearm muscles
 - D. is due to excessive scarring of the skin of the axilla following a burn
6. Non-union in closed fractures may due to any of the following except:
 - A. Inadequate immobilization
 - B. Interposition of soft parts
 - C. Impaired blood supply
 - D. Inspection of the fragments
7. Causes of gangrene after fracture in a limb do not include:
 - A. Direct crushing of the tissues
 - B. Injury to the main vessels
 - C. Tight plasters
 - D. Septic infection
8. The incorrect statement about anterior dislocation of the shoulder joint is that:
 - A. shoulder loses its rounded contour & becomes flattened
 - B. The elbow is abducted from the side
 - C. All movements of the shoulder are limited and painful
 - D. The anterior and posterior folds of the axilla are elevated
9. Posterior dislocation of elbow joint is characterized by the following except:
 - A. Gross swelling of the elbow region
 - B. Loss of all movements at the elbow joint

- C. Shortening of the upper arm
 - D. Absence of crepitus
10. 3 Tears of the meniscus of the knee result from which of the following strain:
- A. Hyperextension
 - B. Adduction
 - C. Rotation
 - D. Combined flexion and rotation
11. A lateral blow at the level of the knee joint may cause:
- A. Rupture of anterior cruciate ligament
 - B. Rupture of medial collateral ligament
 - C. Avulsion of medial meniscus
 - D. Bumper fracture of tibia
12. Palmar dislocation of the PIP joint with fracture:
- A. Is more common than dorsal dislocation.
 - B. Is treated by splinting with the PIP joint in flexion.
 - C. Is treated by splinting with the PIP joint and DIP joints in extension.
 - D. If not splinted properly, will cause a boutonniere deformity.
13. Fracture of the fifth metacarpal neck:
- A. Usually requires open reduction and internal fixation.
 - B. Must be reduced anatomically and stabilized with pins.
 - C. Is called a "boxer's fracture."
 - D. Will result in significant functional disability if angulated 30 degrees dorsally.
14. A Bennett's fracture is:
- A. An extra-articular fracture of the base of the thumb metacarpal.
 - B. Displaced by the pull of the abductor pollicis longus and adductor pollicis.
 - C. Displaced by the pull of the abductor pollicis longus and extensor pollicis longus
 - D. Usually successfully treated with closed reduction and casting.
15. Intramedullary nailing of femoral shaft fracture is contraindicated:
- A. When there is compounding
 - B. When the fracture is transverse
 - C. When the fracture is in narrowest part of the bone
 - D. In a child
16. What is true about supracondylar fracture fractures of femur:
- A. Distal fragment tilts posteriorly due to pull of gastrocnemius
 - B. Distal fragment tilts anteriorly due to pull of quadriceps
 - C. Can be treated using K-nailing
 - D. Can be treated with Russel traction
17. Which of the following is not seen in intracapsular fracture of femoral neck
- A. Collapse of head of after union of fractures
 - B. Malunion with more than 3 inch of shortening
 - C. Avascular necrosis of femoral neck head
 - D. Non union
18. The best radiological view for the fracture scaphoid is
- A. AP

- B. PA
 - C. Lateral
 - D. Oblique
19. The cause of gun stock deformity is
- A. Supracondylar fracture
 - B. Fracture both bones of forearm
 - C. Fracture surgical head of humerus
 - D. Fracture humerus
20. The most common fracture in a 7 year old child due to fall in an outstretched hand is
- A. Shoulder dislocation
 - B. Colles' fracture
 - C. Fracture of clavicle
 - D. Supracondylar fracture of humerus

SECTION B SHORT ANSWER QUESTIONS

40 MARKS

1. While managing a patient who had supracondylar fracture, you suspect that the patient is developing complications. What possible complications do you expect to get in your assessment 5 Marks
2. Peter has forgotten to name and explain the intracapsular fractures of the femur when asked in class, help him to answer the question 5 Marks
3. Discuss the pathophysiology of a fracture 5 Marks
4. Explain how a cancellous bone heals 5 Marks
5. Student Korir does not know how to perform a Posterior Drawer Test and its significance. Explain it to him. 5 Marks
6. Compare the benefits of using an MRI and X-ray image during orthopedic assessment of a patient 5 Marks
7. While attending your ward rotation, you are asked by an orthopedic doctor during ward round to explain the documentation components of a fracture that must be captured while describing a fracture 5 Marks
8. While assessing movement in an orthopedic patient what components of it will you be assessing 5 Marks

SECTION C: LONG ANSWER QUESTIONS

40 MARKS

1. Elaborate **FIVE** systemic complications of fracture 20 Marks
2. A. Discuss in detail the ASIA classification of spinal cord injury 10 Marks
B. Explain in details the five lines of alignment considered during assessment of the lateral cervical spine radiograph 10 Marks