

**KENYA MEDICAL TRAINING COLLEGE**

**FACULTY OF CLINICAL SCIENCES**

**DEPARTMENT OF ORTHOPAEDIC & TRAUMA MEDICINE**

**FINAL QUALIFYING EXAMINATION**

**FOR**

**DIPLOMA IN ORTHOPAEDIC & TRAUMA MEDICINE**

**PAPER: TRAUMATOLOGY**

**DATE: TIME: 3 HOURS (9:00AM – 12:00 NOON)**

**INSTRUCTIONS**

1. This paper consists of:

* Section 1 (40 Multiple Choice Questions)
* Section 2 (8 Short Answer Questions)
* Section 3 (1 Long Answer Question)

1. Attempt **ALL** Questions
2. Write the EXAMINATION **NUMBER** given on all the answer sheets provided and on the question paper.
3. Ensure that all examination answer scripts are handed in at the end of the examination
4. Ensure you sign the examination register provided

EXAMINATION NUMBER ………………………………………………………………

**SECTION I: MULTIPLE CHOICE QUESTIONS (MCQs) (40MARKS)**

1. **Pathology of septic arthritis consists of:**
   1. A thickened congested synovial membrane
   2. Joint cavity may be full of serous or sero-purulent fluid
   3. Articular cartilages are not destroyed in neglected cases
   4. Pus may burst through the capsule leading to superficial abscess
2. **Clinical signs and symptoms of septic arthritis include**
   1. Severe pain and tenderness in the joint affected, fever and headache.
   2. Severe fever , anorexia, headache, non-tender joint and malaise
   3. Swollen, cold and non-tender joint
   4. X-ray of affected joint is always normal
3. **Which one is not a complication of tuberculous arthritis**
   1. Dislocations
   2. Malignant transformation
   3. Fractures
   4. Sinus formation
4. **Syphilitic arthritis (clluton's joint) does not include:**
   1. Hereditary type of syphilis.
   2. It is a disease of the elderly.
   3. Presents clinically by bilateral painless effusion of a large joint.
   4. Other data of syphilis are present as keratitis, orchitisand labrynthitis
5. **Tuberculous periosteitis commonly found in:**
   1. Ribs and pelvic bones.
   2. Vertebrae.
   3. Short -long bones as phalanges of hands and feet.
   4. Skull
6. **The commonest site of Pott's disease:**
   1. High-thoracic (T6-T7)
   2. Lumbo-sacral (L5-S1)
   3. Cervico-dorsal region (C7-T1)
   4. Dorso-lumbar (T12-L1).
7. **The most diagnostic radiological sign of acute osteomyelitis is:**
   1. Soft tissue shadow of the abscess cavity.
   2. Presence of sequestrum.
   3. Marked osteoporosis of the bone affected.
   4. None of the above.
8. **Cloacae of chronic osteomyelitis are:**
   1. Multiple bone cavities filled with air
   2. Multiple irregular areas of new bone formation
   3. Multiple areas of dead bone inside cavity of osteomyelitis
   4. Multiple sinuses filled with air
9. **Radiological findings characteristic of brodie's abscess are:**
   1. Bone sclerosis.
   2. Involucrum
   3. Large sequestrum filling cavity of bone.
   4. Pathological fracture.
10. **Acute haematogenous osteomyelitis:**
    1. It is not common below age of 10 years
    2. It is more common in girls than in boys
    3. It is not common in patients with low resistance
    4. It must be treated surgically, no place for medical treatment.
11. **Complications of rheumatoid arthritis in the hands include:**
    1. Tenosynovitis
    2. Rupture of extensor tendons
    3. Ulnar deviation at the metacarpophalangeal joints
    4. Bony ankylosis of affected joints
12. **The x-ray findings in tuberculosis of the hip include the following except:**
    1. Diffuse decalcification of the bone
    2. Diminution of the joint space
    3. Wandering acetabulum
    4. Downward tilting of the acetabulum
13. **Treatment of genu valgum includes the following except:** 
    1. Physiotherapy
    2. Wedged shoes
    3. Night splints
    4. Osteoclasis of the tibia
14. **Osteogenesis imperfecta is characterized by the following features except** 
    1. Blue sclerae
    2. Brittle shell-like bones
    3. Multiple fractures
    4. Osteoporosis
15. **Which of the following statements is untrue in Paget's disease:**
    1. The bones are greatly thickened and very vascular
    2. Cranial nerve palsies may occur
    3. Spontaneous fractures are rare
    4. X-ray examination of the skull is diagnostic
16. **Which statement is not true in renal rickets:**
    1. Results from renal insufficiency in infancy
    2. Is due to deficient phosphorus, excretion
    3. Manifests itself by marked dwarfism
    4. Causes no deformities in the limbs
17. **A 7-year-old child presented with intermittent limp and pain in the right hip and knee. On examination, flexion and extension movements were free and there was no tenderness and no muscle wasting. X-ray examination confirmed the diagnosis of:**
    1. Early tuberculous arthritis of the hip joint
    2. Traumatic arthritis
    3. Perthes' disease
    4. Slipped upper femoral epiphysis
18. **The most common tumor of the small bones of the hands and feet is:**
    1. Enchondroma
    2. Osteochondroma
    3. Osteoclastoma
    4. Cancellous osteoma
19. **The viscosity of synovial fluid is mainly due to:**
    1. Chondroitin sulphate
    2. Hyaluronidase
    3. Albumin and laucin
    4. Alpha and beta globulins
20. **A trigger finger is**
    1. an inflamed index finger
    2. an atrophic index finger in a median nerve palsy
    3. due to stenosing tenovaginitis affecting one of the flexor tendons in the palm
    4. an essential feature of the carpal tunnel syndrome
21. **Osteoporosis is a deficiency in:**
    1. Calcium metabolism
    2. Calcium deposition
    3. Protein supporting tissue
    4. Iron deposition
22. **Localized bone sclerosis may be due to:**
    1. Syphilis
    2. Osteoarthritis
    3. Bone tumors
    4. a, b and c above
23. **Osteomalacia may be due to the following factors except** 
    1. Starvation
    2. Repeated pregnancies
    3. Idiopathic steatorrhea
    4. Increased renal excretion of calcium and phosphorus
24. **Which of the following is not a characteristic of achondroplasia?** 
    1. Short extremities
    2. Normal trunk length
    3. Normal intelligence
    4. Normal ossification of cartilage
25. **Ewing's tumor affecting the humerus**
    1. is a metastasis from carcinoma of the thyroid
    2. should be treated by immediate amputation
    3. looks like a cut onion on x-ray
    4. has a soap-bubble appearance on x-ray
26. **Barlow's sign is related to the diagnosis of** 
    1. talipes equinus varus
    2. congenital dislocation of the hip
    3. ulnar nerve palsy
    4. genu varum
27. **Bone dysplasia is due strictly to**
    1. osteomyelitis
    2. parathyroid tumor
    3. trauma
    4. faulty development
28. **‘Tennis elbow' is the term used for** 
    1. olecranon bursitis
    2. 'non-articular rheumatism' of the extensor muscles of forearm attached to lateral epicondyle of the humerus
    3. myositis ossificans of the supinator muscle
29. **A sequestrum is**
    1. a piece of soft dead tissue
    2. a piece of dead skin
    3. a dead tooth
    4. a piece of dead bone
30. **A Brodie's abscess is**
    1. a subperiosteal abscess due to infection of the mastoidair cells
    2. a type of breast abscess
    3. a chronic abscess of the boned.
    4. an abscess arising in the inguinal lymph nodes
31. **The initial abnormality in primary osteoarthritis is**
    1. sclerosis of cartilage
    2. Fibrillation of cartilaged.
    3. an osteophyte.
    4. a fractured head of radius
32. **The single dependable sign of early Volkmann's contracture is:**
    1. Obliteration of radial pulse
    2. Paralysis of flexor muscles of forearm.
    3. Pallor of fingers.
    4. Pain
33. **Cubitus valgus of elbow commonly follows fracture of:**
    1. Lateral condyle
    2. Medial condyle
    3. Capitalum
    4. Lower third of humerus
34. **Stenosing tenovaginitis commonly affects:**
    1. Abductor pollicis.
    2. Flexor pollicis longus.
    3. Opponens pollicis
    4. All of the above.
35. **What is a small piece of dead bone separated from healthy bone known as?**
    1. Osteophyte
    2. Osteosarcoma
    3. Involucrum
    4. Sequestrum
36. **In Perthes' disease the hip movements restricted are:**
    1. Abduction and external rotation.
    2. Abduction and internal rotation.
    3. Adduction and external rotation.
    4. All of the above.
37. **The sequestrum in X-ray appears:**
    1. Dense
    2. Light
    3. Isodense as surrounding bone
    4. Any of the above.
38. **Myositis ossificans commonly occurs around:**
    1. Shoulder
    2. Elbow
    3. Wrist
    4. Knee.
39. **Volkmann’s ischemia commonly occurs following:**
    1. Fracture shaft humerus
    2. Supracondylar fracture
    3. Colles' fracture
    4. Monteggia fracture.
40. **The most common site of bone cyst is :-**
41. Lower end of femur
42. Upper end of humerous
43. Radius
44. Lower distal ulnar

**SECTION II: SHORT ANSWER QUESTIONS (SAQs) (40marks)**

1. Discuss 5 pathology of acute osteomyelitis (5marks)
2. List the serious side effects which are the reasons whysteroids are avoided in almost all patients with rheumatoid arthritis but given in the most severe ones (5marks)
3. List the features which are suggestive of gouty arthritis (5marks)
4. List any five benign bone tumours arising from bone (5marks)
5. What are the potentially risk factors for osteoporosis (5 marks)
6. Describe the clinical features of achondroplasia (5marks)
7. Briefly describe the management of genu valgum (5 marks)
8. Briefly outline the signs and symptoms of carpal tunnel syndrome (5 marks)

**SECTION III: LONG ANSWER QUESTIONS (LAQs) ( 20marks)**

1. **Concerning amputation :-** 
   1. Briefly describe the levels of amputations in the lower extremity. (5marks)
   2. Enumerate early and late complications of amputation. (5marks)
   3. Outline the management of the complications you listed above. (10marks)