

**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. **Which is true about osteosarcoma**
2. Radiotherapy
3. Amputation
4. Excision
5. **Curettage and bone grafting**
6. **What is the most common primary malignant tumour of bone?**
7. Ewing’s sarcoma
8. Osteosarcoma
9. Chondrosarcoma
10. Giant cell tumour
11. **In x-ray , a dead bone looks like as :-**
12. Radiolucent
13. Radio-opaque
14. Highly radio-opaque
15. Non visualized
16. **X-ray showing decreased intervertebral space and presence of Para-vertebral shadow. What could be the diagnosis?**
17. Tuberculosis of spine
18. Ankylosing spondylitis
19. Multiple myeloma
20. Granuloma
21. **Pyogenic arthritis.**
22. Caused by organisms of non-pyogenic group.
23. Can be iatrogenic.
24. Arthrotomy is contraindicated.
25. Treatment with long term antibiotics is not advisable.
26. **The following are treatment options for acute osteomyelitis except :**
27. Analgesics for pain and intravenous fluids for dehydration
28. Limb rested on the splint and traction for hip infection
29. Older children and adults fluidic acid for 4-6weeks
30. Children over the age of 5yrs risk haemophilus influenza which respond well to amoxicillin
31. **Rheumatoid arthritis primarily involves the:**
    1. Articular cartilage
    2. Subchondral bone
    3. Synovial membrane
    4. Capsule
32. **The commonest cause of chronic osteomyelitis following acute osteomyelitis is:**
    1. Inadequate treatment of acute osteomyelitis.
    2. moderate virulence of the organisms.
    3. presence of sinuses.
    4. presence of foreign bodies (sequestrum)
33. **Sequestrum of chronic osteomyelitis:**
    1. new bone formation due irritation of periosteum of inflamed bone.b
    2. presence of bone cavity filled with air
    3. Dead part of infected bone due cut of blood supply.
    4. it appears less dense than normal bone
34. **Treatment of chronic osteomyelitis:**
    1. medical treatment in form of antibiotics and blood transfusion.
    2. surgical treatment in form of sequestrectomy.
    3. Sequestrectomy, and saucerization of bone cavity.
    4. sequestrectomy, saucerization, and filling of the bone cavity with antibiotic pills
35. **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
36. **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
37. **Which one is not a complication of tuberculous arthritis**
    1. Dislocations
    2. Malignant transformation
    3. Fractures
    4. Sinus formation
38. **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, orchitis and labrynthitis
39. **The commonest malignant tumour of bones is:**
    1. Multiple myelomatosis
    2. Ewing sarcoma
    3. Fibro sarcoma
    4. Lymphomas of bones
40. **Origin of cancellous osteoma:**
    1. Metaphysis of long bones
    2. Diaphysis of long bones
    3. Periosteum of the bone
    4. Epiphyseal cartilage plate of long bone.
41. **Onion-peal appearance of plain x-ray of the bone ischarateristic of the following tumour:**
    1. Osteoclastoma.
    2. Osteosarcoma of the osteogenic type.
    3. Multiple myelomatosis
    4. Ewing's sarcoma.
42. **Congenital hip dislocation (CHD.):**
    1. Neonates and infants
    2. Affects boys more than girls
    3. Bilateral in 80% of cases.
    4. It is due congenital laxity of ligaments of the hip joint
43. **The best method of diagnosis of CHD at birth is:**
    1. Symmetry of the buttocks.
    2. Wide range of movement of the hip joint
    3. Telescopic movement of the limb
    4. Wide perineum in bilateral cases
44. **The most diagnostic investigation of CHD is:**
    1. X-ray of the hip joint
    2. Ultrasonography
    3. Cat scanning of the hip
    4. Arthroscopy and arthrography
45. **Which one of the conditions does not cause genu valgum (knock-knees):**
    1. Tumours
    2. Paget's disease of bones
    3. Rheumatoid or osteoarthritis
    4. Rickets
46. **The commonest cause of genu varum (bow legs):**
    1. Congenital
    2. Fractures
    3. Rheumatoid arthritis
    4. Rickets or osteomalacia
47. **Which of the following is not a common complications of Paget’s disease:**
    1. Heart failure
    2. Osteoarthritis
    3. Dislocations
    4. Osteoarthritis
48. **The commonest bone to affected by Paget’s disease is:**
    1. Long bones especially femur
    2. Vertebrae
    3. Flat bones
    4. Scapula
49. **What is not True of acute pyogenic osteomyelitis:**
    1. Trauma is a predisposing factor
    2. Common infecting agent is Staph. Aureus
    3. Infection is usually blood borne
    4. a, b and c above
50. **Osteoclasis can be used to:**
    1. Correct deformity of the tibia due to rickets.
    2. Curette an osteoclastoma
    3. Correct deformity
    4. Correct a ricketery rosary
51. **In Dupuytren's contracture which one of the following statements incorrect:**
    1. It is a contracture of the flexor tendons to the ring and little fingers
    2. It is a contracture of the palmar fascia
    3. It may occur in the plantar fascia
    4. There is an association with cirrhosis of the liver
52. **The sequestrum in X-ray appears:**
    1. More dense than normal bone
    2. Light
    3. Is Odense as surrounding bone
    4. Less dense than normal bone
53. **First bone to ossify in foetal life is:**
    1. Femur
    2. Tibia
    3. Clavicle
    4. Sternum
54. **Myositis ossificans commonly occurs around:**
    1. Shoulder
    2. Elbow
    3. Wrist
    4. Knee.
55. **Volkmann’s ischemia commonly occurs following:**
    1. Fracture shaft humerus
    2. Supracondylar fracture
    3. Colles' fracture
    4. Monteggia fracture
56. **Cubitus valgus of elbow commonly follows fracture of:**
    1. Lateral condyle
    2. Medial condyle
    3. Capitalum
    4. Lower third of humerus
57. **What is True of Sundeck’s atrophy of hand:**
    1. Hand is painful and swollen
    2. Osteoporosis of carpals and metacarpals
    3. There is increased blood flow to Para-articular areas
    4. a, b and c above
58. **Which nerve is compressed in carpal tunnel syndrome:**
    1. Ulnar
    2. Median
    3. Radial
    4. Brachial plexus
59. **Still's disease is**
    1. spastic diplegia
    2. rheumatoid arthritis in childhood
    3. rheumatoid arthritis in the elderly
    4. Post-traumatic bone formation in the lateral ligament of the knee. synonymous with Reiter's disease
60. **The initial abnormality in rheumatoid arthritis is**
    1. fibrillation of cartilage
    2. sclerosis of cartilage
    3. in the synovial membrane
    4. in the capsule
61. **Legg-Calve-Perthe's disease is**
    1. osteochondritis of the spine
    2. tuberculosis of the hip joint
    3. slipped proximal femoral epiphysis
    4. osteochondritis of the proximal femoral epiphysis
62. **The name associated with joint neuropathy is that of**
    1. Cushing
    2. Osier
    3. Moon
    4. Charcot
63. **Adrenocorticosteroids administered in excess cause**
    1. Osteoporosis
    2. Osteosclerosis
    3. Osteochondritis
    4. endochondral ossification
64. **Bone ankylosis results from** 
    1. Pyogenic arthritis
    2. Tuberculosis arthritis
    3. Osteoarthritis
    4. Rheumatic arthritis

**SECTION B: SHORT ANSWER QUESTIONS (SAQs) 40MARKS**

1. What are the most common locations of osteo-arthrosis in descending order? (5 marks)
2. Briefly describe the symptoms of Legg-Calve-Perthes syndrome (5 marks)
3. List any five conventional options for treatment of scoliosis (5 marks)
4. Briefly state the symptoms of Paget's disease (5 marks)
5. Give five (5) examples of the deformities seen in vertebraes of children with congenital scoliosis (5 marks)
6. Briefly describe the conservative treatment methods for tennis elbow (5 marks)
7. Outline any five salient features of congenital talipes equinovarus (5 marks)
8. Neoplasms are classified under benign tumours. List five examples of benign tumours (5 marks)

**SECTION C: LONG ANSWER QUESTION (LAQ) 20MARKS**

**1. Describe ankylosing spondylitis under the following subheadings:**

(i) Clinical features (6marks)

(ii) X-R findings. (4marks)

(iii) Management (10marks)