

**KENYA MEDICAL TRAINING COLLEGE**

**FACULTY OF CLINICAL SCIENCES**

**DEPARTMENT OF ORTHOPAEDIC & TRAUMA MEDICINE**

**FINAL QUALIFYING EXAMINATION**

**FOR**

**DIPLOMA IN ORTHOPAEDIC & TRAUMA MEDICINE**

**PAPER: ORTHOPAEDICS**

**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. **Not true about osteogenesis imperfect is :-**
2. Deafness
3. Fractures
4. Cataract
5. Blue sclera
6. **All are seen in osteogenesis imperfecta except :-**
7. Blue sclera
8. Bilateral hip dislocation
9. Lax ligament
10. Osteoporosis
11. **In Pott's spine, the disease starts in the:**
    1. Intervertebral disk.
    2. Anterior vertebral margin.
    3. Posterior vertebral margin.
    4. Paravertebral soft tissue
12. **The synonym for Paget's disease is:**
    1. Osteitis fibrosa
    2. Osteitis proliferans.
    3. Osteitis deformans
    4. Osteochondroma
13. **A greenstick fracture:**
    1. Occurs chiefly in the elderly and infants.
    2. Does not occur in children.
    3. Is a spiral fracture- of tubular bone?
    4. Is a fracture where part of the cortex is intact and parts crumpled or cracked
14. **Trendelenburg's sign is used in the diagnosis of:**
    1. Varicose veins
    2. Congenital dislocation of the hip
    3. Carcinoma of the stomach
    4. Pulmonary embolism.
15. **Perthes' disease is common to age group of:**
    1. 1-5 years
    2. 6-10 years
    3. 11-15 years
    4. 16-20 years
16. **Which of the following is untrue regarding Reiter’s diseases:**
    1. Conjunctivitis
    2. Ulcer on palm and sores
    3. Interstitial lung disease
    4. After sexual contact
17. **Which one of the following terms is inappropriate to the condition of osteomyelitis**
18. Cloacal
19. Involucrum
20. Sequestrum
21. Myelocoele
22. **Trenderburg' s sign can be elicited in all of the following except :** 
    1. Congenital dislocation of the hip.
    2. Infantile paralysis of the gluteal muscles
    3. Coxa vara
    4. Tuberculous arthritis of the hip joint.
23. **The most common cause of genu valgum in children is:**
    1. Rickets
    2. Paget’s disease
    3. Osteoarthritis
    4. Rheumatoid arthritis
24. **The most characteristic feature of Volkmann's contracture is** 
    1. Wasting of the forearm
    2. Flexion deformity of the wrist
    3. Weakness of the hand and fingers
    4. Extension of the metacarpophalangeal joints with flexion of the interphalangeal joints
25. **In congenital dislocation of the hip, the pathological changes include the following except**
    1. Small shallow acetabulum
    2. Snail flattened femoral head lying outside the acetabulum
    3. Elongated femoral neck
    4. Shortened hamstrings and adductors
26. **What is the cause of the cause of Lordosis**
    1. it’s unknown
    2. Is caused from osteoporosis, bone weakness, and crumbling forward.
    3. is the abnormal inward lordotic curvature
    4. It may be hereditary
27. **Choose the mechanism of injury in ankle sprains.**
    1. Plantar flexion
    2. Inversion
    3. Dorsiflexion and eversion of the ankle with internal rotation
    4. Plantar-flexion and inversion of the ankle with internal rotation
28. **In Osteoporosis, mass of bone is reduced and is caused by low levels of**
    1. estrogen
    2. calcium
    3. vitamin-D
    4. minerals
29. **Dupuytren contracture is most common in people of what ancestry?**
    1. Native American
    2. Spanish
    3. Vikings
    4. Japanese
30. **The following include early features of ankylosing spondylosis except :-**
31. Stiff spine
32. Squaring of lumbar vertebrae
33. Bilateral sacro-iliac erosion
34. Splindling of finger and synovitis of the wrist
35. **The following investigations are important in the diagnosis tuberculous arthritis except :-**
36. Increased E.S.R
37. Mantoux or heaf test
38. Acid fast bacilli
39. Dark ground microscopy
40. **In rheumatoid arthritis a sequence of changes are demonstrable in the radiograph:-**
41. Subcutaneous nodule
42. Tendon rupture
43. Synovitis
44. Periarticular osteoporosis
45. **Reiter’s syndrome :-**
46. Is a classic form of reactive arthritis
47. Occurs as a result of venereal disease or dysentery
48. Is aseptic inflammatory arthritis associated with urogenital or bowel infection
49. Follows neglected gonococcal infection
50. **The following is true about TB vertebrae except**
51. Affect the vertebral bone..
52. Vertebrae collapses posteriorly to form a wedge shaped appearance.
53. Vertebrae collapses anteriorly to form a wedge shaped appearance.
54. May arise from infection of adjacent foci
55. **The following are complications of TB arthritis except.**
56. Sinus formation.
57. Secondary infection through sinus track .
58. Spread of disease to other body parts.
59. Trigger auto immune response.
60. **What is the most common site of metastasis of sarcomas**
61. Liver
62. Brain
63. Lung
64. Skeleton
65. **Radiological Diagnostic tests in orthopaedics include the following which one is not :-**
66. CT scans
67. MRIs
68. X-rays
69. Bone biopsy
70. **Carpal tunnel syndrome treatment include :-**
71. Rest
72. Splint
73. Anti-inflammatory
74. Less physical therapy
75. **the following is true about Tendonitis , which one is not :-**
76. Inflammation of tendon or connective tissue that attaches muscle or bone
77. Affects individuals working at repetitive tasks requiring finger and wrist motions
78. Finger joint wrist exercise may not be necessary
79. Rest , anti-inflammatory drug is part of treatment
80. **Which of the following is associated with high risk of osteosarcoma?**
81. Germline mutation of p53
82. Translocation
83. Tanslocation
84. Nonrandom translocation
85. **Which of the following is NOT included in the differential of Ewing's sarcoma?**
86. Lymphoma
87. Metastatic neuroblastoma
88. Mesenchymal chondrosarcoma
89. Leiomyosarcoma of bone
90. **Which of the following osteosarcomas have better prognosis?**
91. Osteoblastic osteosarcoma
92. Parosteal osteosarcoma
93. Telangiectatic osteosarcoma
94. Small cell osteosarcoma
95. **A 8year old child presents with one year fracture neck of humerous and x-ray reveals cystic lesion. The probable diagnosis is :-**
96. Osteoclastoma
97. Osteogenic sarcoma
98. Osteomyelitis
99. Unicameral bone cyst
100. **Osteochondroma is commonly seen in :-**
101. Ribs
102. Scapula
103. Epiphysis
104. Metaphysis in femur
105. **Bony metastasis is seen in all except :-**
106. Carcinoma thyroid
107. Carcinoma bronchus
108. Carcinoma breast
109. Cystosarcoma phylloids
110. **Acute osteomyelitis of long bones commonly affects the :-**
111. Epiphysis
112. Diaphysis
113. Metaphysis
114. Articular surface
115. **All are associated with chronic osteomyelitis except :-**
116. Amyloidosis
117. Sequestrum
118. Metastatic abnormality
119. Myositis ossificans
120. **Which of the following is not associated with osteogenesis imperfecta**
     1. Blue sclera
     2. Cataract
     3. Deafness
     4. Fractures
121. **The following are examples of developmental defects except..**
     1. Spina bifida
     2. Phocomelia
     3. Foetal hydration syndrome
     4. Foetal alcoholic syndrome
122. **Which of the following is true regarding Polydactyl?**
     1. Occurs when a child is born with more than five digits (fingers or toes) on his or her hands or feet
     2. It is characterized by incomplete separation of fingers or toes
     3. It develops after birth
     4. It is always made of a bone
123. **Sudden physical trauma to spine while bending or lifting heavy weight can lead to**
     1. rickets
     2. herniation
     3. realignment
     4. kwashiorkor
124. **‘Bony crepitus’ which is heard on moving the knee affected with osteoarthritis is a:**
     1. Sensation of bone rubbing against bone
     2. Sensation of weakness in the bone
     3. Sensation of bubbles in the bone
     4. Hardening and dislocation of the joint

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

1. Name the commonest sites of osteosarcoma (5marks)
2. List the laboratory tests findings that are useful in the diagnosis of multiple myeloma (5marks)
3. List the signs of congenital hip dysplasia in a child which presents late (5marks)
4. List the signs and symptoms of Dupuytren's contracture (5marks)
5. Outline the risk factors to getting osteomyelitis (5marks)
6. mention the causative organisms of pyogenic arthritis (5marks)
7. List the pathological findings of a joint which is involved in the rheumatoid process. (5marks)
8. state 5 complications of amputation (5marks)

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

**1. Describe slipped upper femoral epiphysis under the following subheadinngs:**

(i) Aetiology (4marks)

(ii) pathology. (6marks)

(iii) Manage the above condition-mild,morate and severe forms. (10marks)