**KENYA MEDICAL TRAINING COLLEGE**

**FACULTY OF CLINICAL SCIENCES**

**DEPARTMENT OF ORTHOPAEDIC & TRAUMA MEDICINE**

**FINAL QUALIFYING EXAMINATION**

**FOR**

**DIPLOMA IN ORTHOPAEDIC & TRAUMA MEDICINE**

**PAPER: TRAUMA**

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

**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 1: MULTIPLE CHOICE QUESTIONS (40marks)**

1. **Which is not a principle of compound fracture treatment?**
2. No tendon repair
3. Aggressive Antibiotic cover
4. Wound debridement
5. Immediate Wound closure
6. **Injury to the popliteal artery in fracture lower end of femur is often due to?**
7. Distal fragment pressing the artery
8. Proximal fragment pressing the artery
9. Tight plaster
10. Hematoma
11. **Which of the following is seen in bilateral congenital dislocation of the hip?**
12. Waddling gait
13. hip line is broken
14. Trendelen test positive
15. Allis test positive
16. **Most important pathology in club foot is.**
17. Congenital talonavicular dislocation
18. Tightening of the tendoachilles
19. Calcaneal fracture
20. Lateral derangement
21. **Club foot seen in a 15year old could be treated best by a**
22. Appropriate footwear
23. Soft tissue operation
24. Triple arthrodesis
25. Quadriple fusion

1. **In correction of club foot by manipulation, which deformity should be corrected first**
2. Forefoot adduction
3. Varus
4. Upper end tibia
5. Calcaneum
6. **In congenital dislocation of hip which statement is NOT true**
7. Real shortening
8. Telescoping
9. Trendelenburg test
10. Head of femur
11. **Multiple bone fracture in a new born is seen in**
12. Scurvy
13. Syphilis
14. Osteogenesis imperfect
15. Morquio s syndrome
16. **The following is FALSE of achondroplasia**
17. Autosomal dominant
18. Mental retardation
19. Due to gene mutation
20. Shortening of limbs present
21. **Osteogenesis imperfercta is due to**
22. Defective mineralization of bone
23. Fracture mobilization of calcium from bone
24. Abnormal college defects
25. Excessive osteoid formation
26. **In which of the following condition bilateral symmetrical fractures occur**
27. Rickets
28. Osteoporosis
29. Osteogenesis imperfect
30. Fluorosis
31. **Sequestrum is**
32. A piece of infected bone
33. A piece of dead bone
34. Organized inflammatory exudate
35. Segregated marrow tissue
36. **Foot drop is seen in**
37. Tibia nerve injury
38. Achilles tendon injury
39. Popliteal nerve injury
40. Common peroneal nerve injury
41. **Formula of dry plaster of Paris is**
42. CaSO4 ½ h2O
43. CaSO4 only
44. CaSO4 2H2O
45. CaSO4 5H2O
46. **The best bone graft is**
47. Allograft
48. Auto graft
49. Deproteinised graft
50. Demineralized graft
51. **The most important type in Volkmann’s ischemic contracture is**
52. Pain
53. Pallor
54. Numbness
55. Obliteration of radial pulse
56. **Which fracture in children requires open reduction**
57. Fracture tibia epiphysis
58. Fracture shaft of femur
59. Fracture both bones forearm
60. Fracture femoral condyle
61. **The most important factor in fracture healing is**
62. Good alignment
63. Organization of blood clot
64. Accurate reduction and 100% apposition of fractured fragments
65. Immobilization
66. **Last step in fracture healing is**
67. Hematoma
68. Callus formation
69. Remodeling
70. consolidation
71. **The most common causes of anterior compartment syndrome are**
72. Fractures
73. Post ischemic swelling
74. Superficial injury
75. Operative trauma
76. **Internal fixation is probably needed in all of the following except**
77. Fracture condyle of humerus
78. Fracture midshaft phalange
79. Fracture olecranon
80. Fracture scapula
81. **The most common cause of non-union**
82. Infection
83. Inadequate immobilization
84. Ischemia
85. Soft tissue interposition
86. **A six-year-old falls in right sided forearm region and develops fracture n dorsal surface of mid region of radius. the best treatment is**
87. Antibiotics and sedative
88. Bone plating and external fixation
89. Slab with wait for bone remodeling
90. Break the cortex other side and immobilization by POP
91. **Dislocations occur most frequently in**
92. Shoulder joint
93. Elbow joint
94. Hip joint
95. Knee joint
96. **Which of the following statements pertaining to greenstick fracture is TRUE?**
97. Any fracture of a child
98. Fracture only in rickety children
99. Only if there is no deformity
100. All of the above
101. **Volkmann’s ischemic contracture is commonly due to**
102. Tight plaster
103. Tight splint
104. Both
105. None
106. **Fracture shaft of femur in adult unites by**
107. 3 to 4 weeks
108. 3 to 5 weeks
109. 3 to 4 months
110. 4 to 6months
111. **Initial stage of clinical union of bone is equivalent to**
112. Callus formation
113. Woven bone
114. Hematoma formation
115. Calcification only
116. None of the above
117. **Delayed union of fracture of a bone following a surgical treatment may be due to**
118. Infection
119. Inadequate circulation
120. Inadequate immobilization
121. All of the above
122. **Treatment of choice for fracture neck of humerus in a 70-year-old**
123. Analgesic with arm sling
124. U-slab
125. Arthroplasty
126. Open reduction- internal fixation
127. **Ideal treatment with fracture neck of humerus in a lady will be**
128. Triangular sling
129. Hemi arthroplasty
130. Chest arm bandage
131. Internal fixation
132. **Commonest type of shoulder dislocation is**
133. Sub coracoid
134. Sub glenoid
135. Posterior
136. Sub clavicular
137. **Treatment of fracture clavicle in an infant is best treated by**
138. Cuff and sling
139. Figure 8 bandage
140. Open reduction
141. Shoulder cast
142. **Fracture of the clavicle are very common injuries. The most frequent complication is**
143. Malunion
144. Delayed union
145. Non union
146. Nerve injury
147. **A young adult presenting with oblique, displaced fracture olecranon treatment of choice**
148. Plaster cast
149. Percutaneous wiring
150. Tension band wiring
151. Removal of displaced piece with triceps repair
152. **The most common elbow injury in children is**
153. Extension type of supracondylar fracture of humerus
154. Dislocation of the elbow
155. Fracture lateral condyle of humerus
156. Fracture medial epicondyle of humerus
157. **Avascular necrosis of bone is most commonly seen in**
158. Calcaneus
159. Cervical spine
160. Scaphoid
161. Scapula
162. **Internal fixation is probably needed in all of the following except**
163. Fracture condyle of humerus
164. Fracture neck of femur
165. Fracture of olecranon
166. Fracture of scaphoid
167. **In shot gun injuries**
168. Each and every shot should be removed
169. All the clots within accessible limits may be removed and thorough debridement of the tissues done
170. Shots lodged in joints must be removed
171. All of the above
172. **A compound fracture is initially treated by antibiotics, wound toilet and**
173. Skin cover
174. External splintage
175. Prosthesis
176. Internal fixation

**SECTION 2: SHORT STRUCTURED QUESTIONS (40 marks)**

1. Outline five conditions that can result from chest injuries **(5marks)**
2. Outline five clinical features of compartment syndrome **(5marks)**
3. Outline five causes of posterior shoulder dislocation **(5marks)**
4. Briefy explain the mason classification of radial head fracture **(5marks)**
5. Outline five complications of wrist fractures **(5marks)**
6. Outline five clinical features of progressive neurological deficit in cauda equina

Syndrome **(5marks)**

1. Outline five differential diagnosis of hip pain **(5marks)**
2. Outline five causes of avascular necrosis **(5marks)**

**SECTION 3: LONG ESSAY QUESTION (20marks)**

1. Complication of fractures can be classified as General or local. With local further classified as either early or late. Discuss management of at least 3 general complications and two early local complications