**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
26. **In correction of club foot by manipulation, which deformity should be corrected first**
27. Forefoot adduction
28. Varus
29. Upper end tibia
30. Calcaneum
31. **In congenital dislocation of hip which statement is NOT true**
32. Real shortening
33. Telescoping
34. Trendelenburg test
35. Head of femur
36. **Multiple bone fracture in a new born is seen in**
37. Scurvy
38. Syphilis
39. Osteogenesis imperfect
40. Morquio s syndrome
41. **The following is FALSE of achondroplasia**
42. Autosomal dominant
43. Mental retardation
44. Due to gene mutation
45. Shortening of limbs present
46. **Osteogenesis imperfercta is due to**
47. Defective mineralization of bone
48. Fracture mobilization of calcium from bone
49. Abnormal college defects
50. Excessive osteoid formation
51. **In which of the following condition bilateral symmetrical fractures occur**
52. Rickets
53. Osteoporosis
54. Osteogenesis imperfect
55. Fluorosis
56. **Sequestrum is**
57. A piece of infected bone
58. A piece of dead bone
59. Organized inflammatory exudate
60. Segregated marrow tissue
61. **Foot drop is seen in**
62. Tibia nerve injury
63. Achilles tendon injury
64. Popliteal nerve injury
65. Common peroneal nerve injury
66. **Formula of dry plaster of Paris is**
67. CaSO4 ½ h2O
68. CaSO4 only
69. CaSO4 2H2O
70. CaSO4 5H2O
71. **The best bone graft is**
72. Allograft
73. Auto graft
74. Deproteinised graft
75. Demineralized graft
76. **The most important type in Volkmann’s ischemic contracture is**
77. Pain
78. Pallor
79. Numbness
80. Obliteration of radial pulse
81. **Which fracture in children requires open reduction**
82. Fracture tibia epiphysis
83. Fracture shaft of femur
84. Fracture both bones forearm
85. Fracture femoral condyle
86. **The most important factor in fracture healing is**
87. Good alignment
88. Organization of blood clot
89. Accurate reduction and 100% apposition of fractured fragments
90. Immobilization
91. **Last step in fracture healing is**
92. Hematoma
93. Callus formation
94. Remodeling
95. consolidation
96. **The most common causes of anterior compartment syndrome are**
97. Fractures
98. Post ischemic swelling
99. Superficial injury
100. Operative trauma
101. **Internal fixation is probably needed in all of the following except**
102. Fracture condyle of humerus
103. Fracture midshaft phalange
104. Fracture olecranon
105. Fracture scapula
106. **The most common cause of non-union**
107. Infection
108. Inadequate immobilization
109. Ischemia
110. Soft tissue interposition
111. **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**
112. Antibiotics and sedative
113. Bone plating and external fixation
114. Slab with wait for bone remodeling
115. Break the cortex other side and immobilization by POP
116. **Dislocations occur most frequently in**
117. Shoulder joint
118. Elbow joint
119. Hip joint
120. Knee joint
121. **Which of the following statements pertaining to greenstick fracture is TRUE?**
122. Any fracture of a child
123. Fracture only in rickety children
124. Only if there is no deformity
125. All of the above
126. **Volkmann’s ischemic contracture is commonly due to**
127. Tight plaster
128. Tight splint
129. Both
130. None
131. **Fracture shaft of femur in adult unites by**
132. 3 to 4 weeks
133. 3 to 5 weeks
134. 3 to 4 months
135. 4 to 6months
136. **Initial stage of clinical union of bone is equivalent to**
137. Callus formation
138. Woven bone
139. Hematoma formation
140. Calcification only
141. None of the above
142. **Delayed union of fracture of a bone following a surgical treatment may be due to**
143. Infection
144. Inadequate circulation
145. Inadequate immobilization
146. All of the above
147. **Treatment of choice for fracture neck of humerus in a 70-year-old**
148. Analgesic with arm sling
149. U-slab
150. Arthroplasty
151. Open reduction- internal fixation
152. **Ideal treatment with fracture neck of humerus in a lady will be**
153. Triangular sling
154. Hemi arthroplasty
155. Chest arm bandage
156. Internal fixation
157. **Commonest type of shoulder dislocation is**
158. Sub coracoid
159. Sub glenoid
160. Posterior
161. Sub clavicular
162. **Treatment of fracture clavicle in an infant is best treated by**
163. Cuff and sling
164. Figure 8 bandage
165. Open reduction
166. Shoulder cast
167. **Fracture of the clavicle are very common injuries. The most frequent complication is**
168. Malunion
169. Delayed union
170. Non union
171. Nerve injury
172. **A young adult presenting with oblique, displaced fracture olecranon treatment of choice**
173. Plaster cast
174. Percutaneous wiring
175. Tension band wiring
176. Removal of displaced piece with triceps repair
177. **The most common elbow injury in children is**
178. Extension type of supracondylar fracture of humerus
179. Dislocation of the elbow
180. Fracture lateral condyle of humerus
181. Fracture medial epicondyle of humerus
182. **Avascular necrosis of bone is most commonly seen in**
183. Calcaneus
184. Cervical spine
185. Scaphoid
186. Scapula
187. **Internal fixation is probably needed in all of the following except**
188. Fracture condyle of humerus
189. Fracture neck of femur
190. Fracture of olecranon
191. Fracture of scaphoid
192. **In shot gun injuries**
193. Each and every shot should be removed
194. All the clots within accessible limits may be removed and thorough debridement of the tissues done
195. Shots lodged in joints must be removed
196. All of the above
197. **A compound fracture is initially treated by antibiotics, wound toilet and**
198. Skin cover
199. External splintage
200. Prosthesis
201. 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: (1 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