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**KENYA MEDICAL TRAINING COLLEGE**

**DEPARTMENT: ORTHOPAEDICS AND TRAUMA MEDICINE**

**DIPLOMA IN ORTHOPAEDIC AND TRAUMA MEDICINE**

**FINAL QUALIFYING EXAMINATION**

**PAPER:** TRACTION

**DURATION:** 3 Hours

**DATE:** 13/2/2019

**TIME:** 2:00 PM – 5:00 PM

**INSTRUCTIONS**

1. Write your examination number on answer book/sheet provided
2. Section one: MCQs – choose single best response
3. Section two: mark T(True) or F(False) for each response
4. Section three: answer all questions.
5. Section four: answer one question.
6. Do not cheat
7. Use legible handwriting

**SECTION ONE: MCQ [30 MARKS]**

1. **Lignocaine is used during insertion of Steinmann pin in order to?**
2. Control bleeding
3. Relieve pain
4. Prevent infection
5. Localize the site
6. **Which one of the following is an indication of Russel’s skeletal traction**
7. **Upper femoral fracture**
8. Skull fracture
9. Distal femur fracture
10. Proximal tibia fracture
11. **Which one of the following is not a contraindication of skin traction?**
12. Wounds
13. Bruises
14. Sores
15. **Pain**
16. **Which of the following is a use of Thomas splint**
17. **Splinting fractures**
18. Carrying patients
19. Elevating the fractured limb
20. Stabilizing spinal fractures
21. **Which one of the following is an indication of Bohler Braun frame**
22. Splinting fractures
23. Carrying patients
24. **Elevating the fractured limb**
25. Stabilizing spinal fractures
26. **When putting weight in traction what do you consider?**
27. **Patient’s weight**
28. Orthopaedic bed
29. Instruction from the surgeon
30. Traction type
31. **What do you need when applying traction?**
32. Patient
33. Orthopaedic Bed
34. Weight
35. **All the above**
36. **When applying traction, what else can you use in absence of weights?**
37. **Weight bags**
38. Clothes
39. Boxes
40. None of the above
41. **What is the contraindication for Bohler Braun Frame?**
42. Fractures of femur in children.
43. Fractures of femur in adults.
44. Hip joint dislocation.
45. **Vertebral column fractures.**
46. **Monkey chains are used for?**
47. Elevation of the limbs
48. **Lifting up of the patient**
49. Tightening of the bed
50. Splinting fractures
51. **The following are components of the Orthopaedic bed except?**
52. Beams
53. Mattress
54. Fracture board
55. **Braun frame**
56. **Perkin’s skeletal traction is indicated for?**
57. **Fracture distal femur.**
58. Fracture upper femur
59. Supracondylar fracture femur
60. Fracture neck femur
61. **Which one of the following is not an indication of skin traction?**
62. Fracture femur in children.
63. Fracture femur in elderly.
64. **Fractures of vertebral column.**
65. Hip joint dislocation.
66. **What maximum amount of weight can be used in skin traction?**
67. 10lbs
68. **5lbs**
69. 20lbs
70. 1lb
71. **The following are all requirements for fixing skin traction except**
72. **Steinmann’s pin tray**
73. Skin traction kit
74. Weight bags
75. Beams
76. **One of the instructions given to a patient after application of traction is**
77. Not to bear weight
78. Sleep all the time
79. **Exercise the limb**
80. Always move the limb
81. **How do you confirm the diagnosis of the patient before putting on traction?**
82. Patient file
83. **X-rays**
84. Patient history
85. Nurses cardex
86. **What is the role of an orthopaedic plaster technician after the application of skeletal traction to the patient?**
87. Discharge the patient home
88. Give antibiotics
89. Train the patient on how to use the crutches
90. **Check whether the patient’s traction is insitu**
91. **Thomas splint is used for the following except:**
92. Splinting fractures
93. Carrying patients
94. Elevating the fractured limb
95. **Stabilizing spinal fractures**
96. **What is the role of lignocaine in fixing traction**
97. Used as an analgesic
98. **Used as a localizinganaesthesia**
99. Controls bleeding
100. Improve blood circulation.
101. **Below are traction techniques used in the management of fractures, which of the following is not skin traction technique**
102. Perkins traction
103. **Russell’s traction**
104. bucks traction
105. gallows traction
106. **Which of the following is not an indication for skin traction?**
107. femoral traction in children
108. **displaced acetabulum fractures**
109. after reduction of dislocated hip
110. temporary management of fracture of neck of femur
111. **Which of the following is not a traction apparatus?**
112. pulleys
113. stirrups
114. **trolley**
115. weights
116. **Why should the lateral skin traction tape, applied to a patient being placed in a Thomas splint for treatment of a fractured femur, be placed more posteriorly than the medial one?**
117. **To correct external rotation of the limb**
118. It will give more traction in that position
119. There will be less skin irritation
120. The groin ring pressure will be lessened
121. **Which is the suitable site for the insertion of the Kirschner wire in skeletal traction technique?**
122. **tibia plateau**
123. distal radius
124. distal metal carpal bone
125. all of the above
126. **What is the most indication for head halter traction?**
127. fracture lumber
128. **neck fractures**
129. clavicle fracture
130. none of the above
131. **Which of the following is not a skin traction component?**
132. crepe bandage
133. adhesive strapping
134. **Steinman pin**
135. foam stirrup
136. **Which of the following is not an indication for cervical spine traction?**
137. **Fracture of the skull bones**
138. Sub-axial cervical fractures that are mal-aligned
139. Sub-axial cervical facet dislocations
140. Odontoid fractures
141. **The following are complications of the skull traction except**
142. Skull perforation
143. **Paraplegia**
144. Pin migration
145. Injury to temporalis muscle
146. **Which of the following is a contra-indication of skeletal traction?**
147. Fractures of femur in adult patients
148. Displaced fractures of humerus in adults
149. Temporarily measure of compound femoral fractures in adults
150. **Femoral fractures in elderly patients**

**SECTION TWO: TRUE/FALSE QUESTIONS [30 MARKS]**

1. **Gallows traction may be useful in children with:**
2. Rickets. F
3. Spina bifida. F
4. Cerebral palsy. F
5. Bilateral fracture of femur. T
6. Spinal fractures. F
7. **The following are site for Steinmann pin insertion.**
8. Calcaneus. T
9. Tibial plateau. T
10. Mid shaft femur. F
11. Neck of femur. F
12. Olecranon process. T
13. **Monkey chain is used for the following reasons:**
14. Back exercises. T
15. Easy Bathing. T
16. Easy toiletry. T
17. Easy walking. F
18. Patient’s elevation. F
19. **The following are uses of continuous mechanical traction in orthopaedic and trauma medicine:**
20. To relief muscle spasms. T
21. Temporarily measure in fractures of femur in adults. T
22. Management of club foot. F
23. Definitive management of femoral fractures in children. T
24. Management of clavicle fractures. F
25. **Complications of definitive skeletal traction are:**
26. Constipation. T
27. Delayed union. F
28. Anxiety. T
29. Muscle atrophy. T
30. Circulatory catastrophe. F
31. **Manual traction is useful in:**
32. Reduction of shoulder joint dislocation. T
33. Management of contractures at a joint. T
34. Reduction of skull fractures. F
35. Reduction of long bone fractures. T
36. Management of prolapsed intervertebral disc. F

**SECTION THREE: SHORT ESSAY QUESTIONS [20 MARKS]**

1. Name five (5) sites of Steinmann pin insertion in the body. [5 marks]

* Calcaneus
* Tibial plateau.
* Distal 1/3 Femur.
* Olecranon process
* Ulna styloid process
* Second and third metacarpal bones

1. List three (3) major types of traction. [3 marks]

* Skin traction.
* Skeletal traction.
* Manual traction.

1. Name four (4) components of skin traction. [4 marks]

* Adhesive strapping tape.
* Spreader.
* Cord.
* Crepe bandage.
* Fastener.
* Weight.

1. Highlight (3) factors to consider when applying traction. [3 marks]

* Patient’s weight.
* Age of the patient
* Displacement of the fracture.
* Clinical appearance of patient’s skin.

1. Mention five (5) components of Steinmann’s pin tray. [5 marks]

* Steinmann pin
* Introducer
* Surgical blade
* Local anesthesia
* Green towel
* Kidney dish.

**SECTION FOUR: LONG ESSAY QUESTIONS [20 MARKS]**

**Answer only one question.**

1. Discuss in details the procedure of applying skeletal traction [20 marks]

* Patient’s preparation.
* Assemble the skeletal traction apparatus.
* Sterilization of the site for Steinmann pin insertion.
* Administer analgesics.
* Givelocal anesthesia.
* Surgical cut
* Drilling of the bone
* Introduction of Steinmann pin
* Fixing of stirrup
* Attach the cord and weight for traction.
* Position the patient.
* Cleaning and dressing of the Steinmann pin traction hole
* Painting of the stirrup
* Give patient instruction on traction care.

1. **Describe the procedure of applying skin traction on a patient.**

* Patient’s preparation.
* Assemble the skin traction apparatus. [name the apparatus]
* Shaving of the patient.
* Reduction of the injury.
* Apply adhesive strapping.
* Apply crape bandage
* Fasten the crepe bandage.
* Fixing of the cord.
* Attach weight for traction.
* Position the patient.
* Give patient instruction on traction care.