**KENYA MEDICAL TRAINING COLLEGE – NYAMIRA**

**END OF YEAR THREE SEMESTER ONE EXAMINATION**

**MARCH 2015 KRCHN CLASS (PRE-SERVICE)**

**ORTHOPAEDICS EXAMINATION**

DATE: …………………… TIME:…………………..

**INSTRUCTIONS**

1. Read the questions carefully and answer only what is asked.
2. Enter your examination number and question number on each page used.
3. ALL questions are compulsory.
4. For part 1 (MCQs), write the answer in the spaces provided on the answer booklet and each MCQ is one (1) mark.
5. For Part 2 (SHORT ANSWER QUESTIONS), answer the questions following each other.
6. For Part 3 (LONG ANSWER QUESTIONS), answer to each question MUST start on a separate page.
7. Omission of and or wrong numbering of a question or part of the question will result in 10% deduction of the marks scored from the relevant part.
8. Do NOT use a pencil.
9. Mobile phones are NOT allowed in the examination hall.

For Examiner:

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| --- | --- | --- | --- | --- |
| **MCQS** | **SAQS** | **LAQS 1** | **LAQS 2** | **TOTAL** |
|  |  |  |  |  |

**PART ONE: MCQS (MULTIPLE CHOICE QUESTIONS) ORTHOPAEDICS – 10 MARKS**

Q.1. Flat bones develops from one of the following rods of cartilage:

1. Membrane models.
2. Cartilage models.
3. Tendon models.
4. Rods of cartilage.

Q.2. One of the following techniques is used to correct Talipes Equino Varus by firm manual pressure without necessarily using anaesthesia.

1. Taut technique.
2. Casting and splintage technique.
3. Ponseti technique.
4. Correcting and over correcting technique.

Q.3. Healthy bone tissue requires:

1. Dietary vitamin A for osteoblast activity.
2. Vitamin C for collagen synthesis.
3. Vitamin D for calcium and phosphate absorption from the intestinal tract.
4. Dietary calcium and vitamins A, C and D.

Q.4. Clinical features of osteoarthritis that drives the patient to seek treatment are:

1. Increasing pain and joint deformity.
2. Growth of osteophytes and fixed joint deformity.
3. Pain, stiffness and joint deformity.
4. Stiffness, joint deformity and restriction of movement.

Q.5. What is the commonest causative organism for osteomyelitis in all age groups?

1. Staphylococcus aureus.
2. Streptococcus.
3. Group B staphylococcus.
4. Haemophilus influenza.

Q.6. The function of acetabular labrum is:

1. It stabilizes the joint and limits its movement.
2. It stabilizes the joint without limiting its range of movement.
3. It limits the range of movement of the hip joint.
4. It forms a cavity through which it is attached to the rim of acetabulum.

Q.7. Patients with myeloma are prone to infections because of:

1. The suppression of normal antibody production.
2. Suppression of red bone marrow function.
3. Their general ill health due to tumours.
4. The tumour arises from plasma cells of the bone marrow.

Q.8. In commuted fractures:

1. The bone is compressed to another bone.
2. The bone is splintered into several fragments.
3. The break runs across the bone.
4. The break runs in a slanting direction on the bone.

Q.9. Which of the following substances, when secreted by osteoblast cells results into formation of callus:

1. Fibroblast.
2. Osteocytes.
3. Osteoid.
4. Osteoclasts.

Q.10. Metastatic tumours:

1. Are relatively uncommon.
2. Are both benign and malignant.
3. Affects the skeleton by blood stream from primary carcinomas of the breast, prostate, lungs, kidneys.
4. Are malignant fibrous histiocytoma of the bone.

**PART TWO: SHORT ANSWER QUESTIONS – ORTHOPAEDICS – 20 MARKS**

Q.1. (a) Name any four (4) types of traction used as immobilization methods in

 orthopaedic nursing. 2 marks

(b) Name four (4) functions of bones. 2 marks

(c) Define the term ossification. 1 mark

Q.2. (a) State the three (3) types of bone cells. 3 marks

 (b) Draw a well labelled diagram of the femur. 5 marks

Q.3. Osteomyelitis is confined to children.

1. State two distinct types of osteomyelitis. 4 marks
2. Name four (4) clinical presentations that may be found during examination. 2 marks
3. List two (2) complications of osteomyelitis. 1 mark

**PART THREE: LONG ANSWER QUESTIONS – ORTHOPAEDICS – 20 MARKS**

Q.1. Mr Ondhuru is admitted to orthopaedic ward following a fall into a well where he sustained multiple compound fractures of the fibia / fibula and the femur. On examination, Mr Ondhuru is found to be bleeding profusely.

1. Outline five (5) ways of treating fractures. 5 marks
2. List four (4) clinical features that Mr Ondhuru will present with. 4 marks
3. Explain the healing process of fractured bone. 10 marks
4. Name any two (2) complications associated with fractures. 1 mark