**KENYA MEDICAL TRAINING COLLEGE – NYAMIRA**

**END OF YEAR THREE SEMESTER ONE EXAMINATION**

**SEPTEMBER 2013 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**

Write true or false for Q.1.

Q.1. Transfemoral amputation is where both the bottom half of the leg and part of the thigh above the knee are amputated.

Q.2. How do metastatic tumours (secondary) affect the skeleton from primary carcinomas of the breast, prostate or kidneys?

1. By earlier metastasis of the carcinomas.
2. Late introduction of powerful cytotoxic drugs.
3. Through diffuse from thickening of carcinomas.
4. By blood stream from primary carcinomas.

Q.3. The fracture which is not well reduced with its fragments not perfectly aligned leads to:

1. Retarded epiphyseal growth.
2. Osteomalacia.
3. Deformity.
4. Poor anatomical bone alignment.

Q.4. Arthroplasty is the operation done for construction of a new movable joint. The aim of arthroplasty could be:

1. To retain joint stiffness.
2. To retain joint mobility.
3. To retain joint immobility to improve bone healing.
4. To retain the articulating surface of a bone.

Q.5. When rheumatoid arthritis affects several joints at the same time, it is referred to as:

1. Symmetrical arthritis.
2. Polyarthritis.
3. Autoimmune.
4. Infective arthritis.

Q.6. Chondrosarcoma is a malignant tumour derived from cartilage cells. If it develops upon the surface of a bone, it is called:

1. Endothelial sarcoma of the bone.
2. Central chondrosarcoma.
3. Peripheral chondrosarcoma.
4. Chondrosarcoma of bone.

Q.7. Which substance is secreted by osteoblasts, which when deposited into the area of a fracture results in the formation of callus?

1. Plasma.
2. Fibroblast.
3. Collagen.
4. Osteoid.

Q.8. A 60 year old woman visits the OPD clinic for follow up care several weeks after she underwent total arthroplasty on the left hip. Her rehabilitation had been progressing fairly well till 5 days ago when worsening pains developed in the hips. The patient says the pains are aggravated by walking and persists during sleeping hours even after she takes strong analgesics like acetaminophen. Infection in the prosthetic joint is suspected. Which of the following is the most likely causative organism?

1. Staphylococcus.
2. Escherichia coli.
3. Pneumococcus.
4. Group A beta-haemolytic streptococcus.

Q.9. Circulatory disturbances is one of the complications of serious fractures causing:

1. Infections to the fracture site.
2. Non-union of fractures.
3. Hypostatic pneumonia.
4. Contractures.

Write true or false for Q.10.

Q.10. Increased pressure within a group of muscles causes a decrease in blood supply to the affected muscles.

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

Q.1. Beatrice, 6 years old is brought to the ward with a provisional diagnosis of acute compartment syndrome and she is for fasciotomy.

1. Define a compartment. 2 marks
2. State two (2) major reasons of fasciotomy. 2 marks
3. Beatrice is for skin grafting because the repair of the fasciotomy is impossible.
4. Explain four (4) major nursing care following skin grafting. 4 marks
5. Name 2 differences between acute and chronic compartment syndrome. 1 mark

Q.2. Elkanah a form two student sustained a fracture of mid shaft of femur while playing.

(a) draw a well labelled diagram (posterior view) of the femur. 5 marks

(b) List four (4) functions of bones. 4 marks

(c) If Elkanah is 27kgs and is for skin traction. Calculate the weight of sand to be

used on his leg. 1 mark

1. Name two (2) types of fractures. 1 mark

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

Q.1. Jane, 45 years is admitted in an orthopaedic ward with severely painful fracture of the femur. After nursing and medical assessment, a diagnosis of compartment syndrome is made.

1. Define compartment syndrome. 1 mark
2. State two (2) classifications of compartment syndrome. 2 marks
3. Explain the aetiology of compartment syndrome. 3 marks
4. Name the clinical features of compartment syndrome. 2 marks
5. Describe the medical and nursing management that would be given to Jane

for the first 72 hours. 11 marks

1. Name two (2) complications of compartment syndrome. 1 mark