

**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (ORTHOPAEDICS) DEGREE EXAMINATION – JUNE 2020**  
**SUBJECT: PAPER I: BASIC SCIENCES RELATED TO SPECIALITY**

Wednesday, June 03, 2020

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays:**

1. Describe Calcium metabolism. How do you investigate and manage 22 year old female with osteomalacia.

(15 marks)

2. Describe the anatomy of articular cartilage. Describe the pathogenesis and relevance of destruction of articular cartilage in infant with acute septic arthritis of the hip joint.

(15 marks)

3. **Write short note:**

3A. Febuxostat

3B. Applicability of growth modulation

3C. Electromyography

3D. Neonatal hip instability test

3E. Bohler Braun splint

3F. Instrumented gait analysis

3G. Methicillin sensitive staphylococcus aureus

3H. Use and abuse of Tourniquet

3I. Thumb in palm deformity

3J. Spina ventosa

(7 marks × 10 = 70 marks)



**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (ORTHOPAEDICS) DEGREE EXAMINATION – JUNE 2020**  
**SUBJECT: PAPER II: TRAUMATOLOGY AND REHABILITATION**

Thursday, June 04, 2020

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Long Essays:**

1. Describe the blood supply of neck of the femur. How do you treat 25 year old young male with neck femur fracture?

(15 marks)

2. Describe static and dynamic stabilizing structures of knee joint. How do you treat 35 year old man with Acute Posterolateral corner injury of the knee?

(15 marks)

3. **Write short note:**

3A. Floating shoulder

3B. Trans scaphoid Perilunate dislocation

3C. Terrible triad of elbow

3D. Myositis ossificans

3E. Biodegradable implants

3F. Titanium elastic nail

3G. Osteochondral knee fracture

3H. Jefferson's fracture

3I. Distal tibial physis injury

3J. Hoffa's fracture

(7 marks × 10 = 70 marks)





**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (ORTHOPAEDICS) DEGREE EXAMINATION – JUNE 2020**  
**SUBJECT: PAPER III: ORTHOPAEDIC DISEASES**

Friday, June 05, 2020

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays:**

1. Discuss medical and Orthopaedic management of Ankylosing spondylitis. (15 marks)
  
2. Classify bone tumours. Discuss histopathological features, diagnosis and management of Osteosarcoma. (15 marks)
  
3. **Write short notes on:**
  - 3A. Fat embolism syndrome
  - 3B. Nonoperative management of knee osteoarthritis
  - 3C. Management of Osteoporosis
  - 3D. Pes Cavus
  - 3E. Blounts disease
  - 3F. ATT regimens in bone and joint tuberculosis
  - 3G. Enumerate fibrous lesions of bone. Clinical features, diagnosis and management of fibrous dysplasia of bone
  - 3H. Boutonniere deformity
  - 3I. Chondromalacia Patella
  - 3J. Synovial fluid analysis

(7 marks × 10 = 70 marks)



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**MANIPAL ACADEMY OF HIGHER EDUCATION**  
**MS (ORTHOPAEDICS) DEGREE EXAMINATION – JUNE 2020**  
**SUBJECT: PAPER IV: RECENT ADVANCES IN ORTHOPAEDIC SURGERY**

Saturday, June 06, 2020

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

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✍ **Answer ALL questions.**

✍ **Long Essays:**

1. Discuss the management of Meniscal injuries of the knee joint. (15 marks)

2. Upper limb prosthesis. (15 marks)

3. **Write short notes on:**

3A. Neo-adjuvant chemotherapy

3B. Mega-prosthesis

3C. Bone banking

3D. CT based classification of proximal tibia fracture

3E. Allografts

3F. Osteoid osteoma

3G. Laminar flow in operating room

3H. Uncemented total hip arthroplasty

3I. Internal fixator

3J. Revision knee arthroplasty

(7 marks × 10 = 70 marks)

