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MANIPAL ACADEMY OF HIGHER EDUCATION
MS (ORTHOPAEDICS) DEGREE EXAMINATION – MAY 2021

PAPER I

Monday, May 03, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays:**

1. Etiopathogenesis of Acute hematogenous osteomyelitis. Explain in detail the management and complications of Tom Smith Arthritis.

(5+10 = 15 marks)

2. Explain Various surgical principles of Amputation. Enumerate various methods of thumb reconstruction after traumatic thumb amputation.

(5+10 = 15 marks)

3. **Write short notes on:**

3A. Bone biopsy.

3B. Basic principles of deformity correction.

3C. Synovial fluid analysis.

3D. Principles of use of pneumatic tourniquet.

3E. Blood supply of talus with a neat labelled diagram.

3F. Diagnostic Ultrasound.

3G. Complex Regional Pain Syndrome.

3H. Structural anatomy and functions of Anterior Cruciate Ligament.

3I. Surgical Anatomy of Flexor tendons in finger.

3J. Basic principles of wound debridement.

(7 marks × 10 = 70 marks)



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PAPER II

Tuesday, May 04, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays:**

1. Anatomy of menisci, Classification, clinical features of meniscal tears. How will you manage a case of bucket handle meniscal tear?

(5+5+5 = 15 marks)

2. Explain the stages of fracture healing and bone remodelling in children. Classify femur shaft fractures in children and explain the management across various age groups and complications.

(5+10 = 15 marks)

3. **Write a short note on:**

3A. Classification and management of post traumatic mallet finger.

3B. Flexion – distraction injury of cervical spine.

3C. Infective non-union of tibia.

3D. Crutch walking.

3E. Functional cast bracing.

3F. Blood supply of scaphoid and management of scaphoid non union.

3G. Lateral condyle humerus fractures in children

3H. Intramedullary nailing.

3I. Sacral fractures.

3J. Acetabular fractures-Radiology and management.

(7 marks × 10 = 70 marks)



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PAPER III

Wednesday, May 05, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays:**

1. Describe the aetiology, pathology, diagnosis and management of Perthe's disease.
(15 marks)

2. Describe aetiopathogenesis, clinical features, diagnosis and management of adult chronic osteomyelitis.
(15 marks)

3. **Write short notes on:**

- 3A. Gout
- 3B. Resistant Clubfoot
- 3C. Obstetrical Brachial plexus palsy
- 3D. Chondrosarcoma
- 3E. Acute calcific tendinitis in shoulder
- 3F. Spondylolisthesis
- 3G. Chondrodiatasis
- 3H. Carpal instability-clinical features and treatment
- 3I. Hand in Rheumatoid arthritis
- 3J. Digital tenovaginitis

(7 marks × 10 = 70 marks)



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PAPER IV

Thursday, May 06, 2021

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays:**

1. Classify osteoarthritis. Discuss the clinical features of osteoarthritis of knee joint. Discuss the different types of prostheses used in total knee replacement arthroplasty.

(15 marks)

2. Role of growth modulation in limb and spine deformity correction.

(15 marks).

3. **Write short notes on:**

3A. Direct Vertebral Rotation

3B. Biodegradable implants

3C. Ganga scoring system of open fractures

3D. Usage of Motor evoked potentials in spine surgery

3E. Advantages and disadvantages of minimally invasive spine surgery

3F. Multi ligamentous knee injury

3G. Vertebroplasty V/s Kyphoplasty

3H. Hip arthroscopy in femoro acetabular impingement

3I. Portals of ankle arthroscopy

3J. Newer concepts in limb reimplantation

(7 marks × 10 = 70 marks)

