

MANIPAL UNIVERSITY
MS (ORTHOPAEDICS) DEGREE EXAMINATION – OCTOBER 2015
SUBJECT: PAPER I: BASIC SCIENCES RELATED TO SPECIALITY

Tuesday, October 06, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays:**

1. Draw a diagram for flexor tendons demonstrating the flexor tendon sheaths and pulleys. Briefly describe the types of healing observed in the tendons following injury and the important factors influencing them.

(15 marks)

2. Demonstrate using illustrations on Wallerian degeneration following nerve injury and its subsequent healing. What are the factors influencing results in nerve injuries following its repair?

(15 marks)

3. **Write short notes on:**

3A. Draw a labelled diagram of the growth plate.

3B. Briefly describe the pathogenesis of primary osteoarthritis.

3C. Briefly describe the mechanism of incorporation of bone allograft for a defect to bridge shaft of femur.

3D. Describe the clinical tests involved in the diagnosis of Thoracic outlet syndrome.

3E. Singh's index.

3F. Horner' sign and its importance in brachial plexus injuries.

3G. Steps of any of the anterior approaches to the hip joint

3H. 45 year old diabetic lady presents with proximal tibia fracture. How will you evaluate for limb ischaemia before sending her for investigations.

3I. Footwear prescription for a 21 year old student with chronic heel pain due to flat foot.

3J. Investigations for infection in a 66 year old patient with knee pain and swelling who has undergone total knee replacement 3 months back.

(7 marks × 10 = 70 marks)



MANIPAL UNIVERSITY**MS (ORTHOPAEDICS) DEGREE EXAMINATION – OCTOBER 2015****SUBJECT: PAPER II: TRAUMATOLOGY AND REHABILITATION**

Wednesday, October 07, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Long Essays:**

1. Describe the anatomy of the ankle joint in relation to the injuries around the ankle joint. Classify ankle injuries. Discuss the various management option of fractures around ankle.

(15 marks)

2. Discuss the classification of acetabular fractures. Enumerate the operative indications of acetabular fractures. Outline various approaches required in operative fixation of acetabulum, their indications and operative risk in each approach.

(15 marks)

3. **Write short notes on:**

3A. Scapulothoracic dissociation

3B. Various labral lesions in anterior dislocation of shoulder

3C. Bennett's fracture dislocation

3D. Gustilo-Anderson classification

3E. Odontoid fracture

3F. Lisfranc fracture dislocation

3G. Reflex sympathetic dystrophy

3H. Displaced fracture neck of femur in adults

3I. Factors influencing fracture union

3J. Terrible triad injury of elbow

(7 marks × 10 = 70 marks)



MANIPAL UNIVERSITY**MS (ORTHOPAEDICS) DEGREE EXAMINATION – OCTOBER 2015****SUBJECT: PAPER III: ORTHOPAEDIC DISEASES**

Thursday, October 08, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL the questions.**

✍ **Long Essays:**

1. Discuss the management of painful hemiarthroplasty of hip joint.

(15 marks)

2. Discuss the management of diabetic foot.

(15 marks)

3. **Write short notes on:**

3A. Congenital vertical talus

3B. Foot drop

3C. Bed sore

3D. Vitamin D deficiency

3E. Radiology of hyperparathyroidism

3F. Carpal tunnel syndrome

3G. Spica syndrome

3H. Synovium

3I. Partial rotator cuff tear

3J. Pubic diastasis

(7 marks × 10 = 70 marks)



MANIPAL UNIVERSITY**MS (ORTHOPAEDICS) DEGREE EXAMINATION – OCTOBER 2015****SUBJECT: PAPER IV: RECENT ADVANCES IN ORTHOPAEDIC SURGERY**

Friday, October 09, 2015

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ **Answer ALL questions.**

✍ **Long Essays:**

1. 45 year old industrial worker presents with tuberculosis of the spine on ATT for 6 months but with continuing progression of disease. How will you evaluate this patient for multidrug resistant Tuberculosis? Define and describe its various types and the treatment plan for this patient in the next 3 years. Add a note on the complications in the drug therapy.

(15 marks)

2. A 25 year old professional football player presents with acute knee injury during a game. MRI shows significant injury to all the ligaments and the medial menisci. Describe your plan of management based on the current literature for this patient so that he can return to his profession in a year's time.

(15 marks)

3. **Write short notes on:**

3A. Recent advances in the investigations for Ewing's sarcoma

3B. Prosthetic advice and counselling for a 49 year old Industrialist who had to undergo below knee amputation for Diabetes

3C. Approach and plan for a 60 year patient who comes with disabling groin pain of a year's duration following uncemented Total Hip Replacement 10 years back

3D. Role of Ultrasound for treatment other than diagnosis in Orthopaedics

3E. Medical Treatment of rheumatoid arthritis with respect to Recent Advances

3F. Surgical options for Osteosarcoma of tibia in a 15 year old boy

3G. Role of silicon devices in orthopaedics

3H. Describe 3 nerve transfer procedure in brachial plexus injuries

3I. Role of suture anchors in Orthopaedics

3J. Management of Diabetic foot with respect to recent advances

(7 marks × 10 = 70 marks)

