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MANIPAL UNIVERSITY

MS (ORTHOPAEDICS) DEGREE EXAMINATION – APRIL 2016

SUBJECT: PAPER I: BASIC SCIENCES RELATED TO SPECIALITY

Monday, April 18, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Long Essays:

1. Describe the gross and microscopic anatomy of the articular cartilage. Discuss the pathological changes in osteoarthritis and rheumatoid arthritis.

(15 marks)

2. Describe the structural anatomy of lumbar intervertebral disc. Outline the various changes in the disc related to age and infection. Discuss the current trends in the management of lumbar intervertebral disc prolapse.

(15 marks)

3. Write short notes on:

3A. Thomas knee splint

3B. Functional cast bracing

3C. Bone remodeling

3D. Diagnostic criteria and treatment of fat embolism syndrome

3E. Electromyography

3F. Bone graft substitutes

3G. Scurvy

3H. Meniscus vascularity

3I. Wallerian Degeneration and regeneration

3J. Tests for rotator cuff tear

(7 marks × 10 = 70 marks)



MANIPAL UNIVERSITY

MS (ORTHOPAEDICS) DEGREE EXAMINATION – APRIL 2016

SUBJECT: PAPER II: TRAUMATOLOGY AND REHABILITATION

Tuesday, April 19, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL questions.

✍ Long Essays:

1. A 23 year old student presents to the Trauma Centre with a history of assault resulting in incised wounds involving the volar side of all the fingers at the level of the proximal phalanx. Describe your plan of management from the time of first inspection till rehabilitation at 3 months' time.

(15 marks)

2. A 78 year old retired engineer who is an active jogger meets with a road traffic accident following which he is unable to walk. At the Trauma centre the resident reports the radiograph of the patient as fracture of the neck of femur. Describe your plan of management keeping in mind his activity at 1 year following injury. Also add a note on the type of complications that you might encounter during the treatment and the solutions for the same.

(15 marks)

3. Write short notes on:

3A. Principles of management of a patient with head injury with floating knee injury in the first 72 hours

3B. ASIA scoring for spinal injury

3C. Management of Klumpke's Palsy in an adult presenting at 6 weeks from injury

3D. Management of an open clavicular fracture in a 39 year old patient

3E. Your approach to a 21 year old badminton player with acute onset shoulder pain following a game

3F. Approach to a 61 year old house wife presenting to you with pain, deformity of arm and wrist drop following a fall in the kitchen.

3G. Differential diagnosis in a 9 year old boy presenting with swelling of elbow following a fall while playing

3H. An unconscious 20 year old patient presents with a tense swelling in the forearm with feeble pulse. Management principles in the next 48 hours

3I. Management principles in a 49 year old farmer presenting with comminuted intra-articular fracture of the distal radius

3J. Principles of amputation in the digits of the Hand

(7 marks × 10 = 70 marks)



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MANIPAL UNIVERSITY

MS (ORTHOPAEDICS) DEGREE EXAMINATION – APRIL 2016

SUBJECT: PAPER III: ORTHOPAEDIC DISEASES

Wednesday, April 20, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL the questions.

✍ Long Essays:

1. Discuss the classification of bone tumors. Discuss the etiopathology, diagnosis and management of osteosarcoma of distal femur.

(15 marks)

2. Discuss the etiopathology and clinical features of osteoarthritis of the knee. What are the various options of management of osteoarthritis of the knee?

(15 marks)

3. Write short notes on:

3A. Degenerative spondylolisthesis

3B. Trendelenburg test

3C. Frieberg's disease

3D. Management options in developmental dysplasia of hip

3E. Volkmann's ischaemic contracture

3F. Amputations of foot

3G. Management of meniscal injuries

3H. Principles of wear and osteolysis after joint replacement

3I. Radioulnar synostosis

3J. Tendon transfers in foot drop

(7 marks × 10 = 70 marks)



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MANIPAL UNIVERSITY

MS (ORTHOPAEDICS) DEGREE EXAMINATION – APRIL 2016

SUBJECT: PAPER IV: RECENT ADVANCES IN ORTHOPAEDIC SURGERY

Thursday, April 21, 2016

Time: 14:00 – 17:00 Hrs.

Max. Marks: 100

✍ Answer ALL questions.

✍ Draw diagrams wherever necessary.

✍ Long Essays:

1. Define MDR Tuberculosis. Discuss the clinical features, diagnosis and treatment of a case of MDR tuberculosis of spine in a 40 year old male.

(15 marks)

2. Classify clavicle fractures. Describe the complications following clavicle fracture. Discuss about the current concepts in treatment of clavicle fractures.

(15 marks)

3. Write short notes on:

3A. Day care surgery in orthopaedics

3B. Vertebroplasty

3C. Treatment of osteoporotic fractures

3D. Trochanteric flip osteotomy in surgical exposure of hip joint

3E. Massive blood transfusion

3F. Bone defects encountered during total knee replacement and their management

3G. Advanced trauma life support care

3H. Ponsetti technique of club foot management

3I. Vacuum assisted closure (VAC) dressing

3J. Vascularised bone grafting

(7 marks × 10 = 70 marks)

