- 1. Enumerate the causes of intoeing gait. How will you treat intoeing gait because of hip disorders.
- 2. What is Congenital Coax Vara. Describe its pathophysiology and outline the principles of management.
- 3. Ober's Test.
- 4. Briefly discuss the clinical features and pathology of Ewing's Sarcoma. Outline the principles of treatment in a case of Ewing's Sarcoma of upper end of humerus.
- 5. How will you evaluate a child with genu valgum deformity? Outline the principles of management. What is timed epiphysiodesis
- 6. Thermoplastic splints.
- 7. Classify nerve injuries. What is the role of electrodiagnosis in differentiating various nerve lesions?
- 8. Discuss the principles of rehabilitation of a paraplegic patient.
- 9. Briefly describe the principles & steps of Ponsetti's method of CTEV correction.
- 10. Enumerate various causes of claw hand. What is the pathogenesis of clawing? Discuss the principles of surgical correction.

- 1. Autologous transfusion.
- 2. Describe the anatomy of Distal Radioulnar joint. Describe indications & technique of performing Kapandji's procedure.
- 3. Sexual dimorphism in orthopedic practice.
- 4. Brown Tumor.
- 5. Surgical dislocation of hip.
- 6. Describe anatomical classification of chronic osteomyelitis. Discuss the principles of management based on this classification. How will you fill the dead space after excision of infected tissue?
- 7. Describe the presentation of tourniquet palsy and its causes. What precautions are taken to prevent it?
- 8. Describe the anatomy of PCL. Discuss its significance in Total Knee Arthroplasty.
- 9. Describe the basic principle of PET scan and discuss its role on orthopedics.
- 10. What is pelvic support osteotomy. Outline its principles and operative technique.

- 1. Discuss anatomy of rotator cuff. What is rotator cuff disease? Discuss its pathogenesis and management.
- 2. Define & classify Rickets. Describe pathogenesis, clinical features and management of hypophosphatemic rickets.
- 3. What are Biochemical bone markers for bone formation and bone resorption. Discuss their role in management of osteoporosis.
- 4. Discuss causes of loosening after a total hip replacement. Discuss its clinical features, diagnosis and management.
- 5. Discuss various methods available for treatment of Giant Cell Tumor of Proximal tibia in a 30 year old man.
- 6. What is claudication? Classify it and discuss its cause specific management.
- 7. Discuss the etiology, pathology, diagnosis and management of Gas Gangrene of the lower Extremity.
- 8. Discuss approach to find out a primary tumor in a 65 year old man presenting with vertebral metastasis and low backache.
- 9. Discuss differential diagnosis in a 25 year old male presenting with mono articular arthritis of knee joint. Tabulate the management in an algorithmic manner.
- 10. What is marfan's syndrome? What is its orthopaedic manifestation?

- 1. Classify Elbow dislocation. How will you manage an unreduced posterior dislocation elbow in 10 year old child?
- Define and classify cerebral palsy. Describe crouched gait and its management in a 10 year old child
- 3. Describe various systems, implants available for limb length equalization. Discuss their underlying principle.
- 4. Give one example each of concentric & eccentric contraction during gait cycle. How will paralysis of tibialis anterior affect normal gait.
- 5. Describe Salter's osteotomy. What are its indications, merits and demerits?
- 6. What is thoracic outlet syndrome? Discuss its anatomy. How will you diagnosis it in OPD?
- 7. Discuss sexual and bladder rehabilitation of a 30 year old male following a complete spinal injury at D12 vertebral level.
- 8. Discuss indications, merits and demerits of talectomy.
- 9. Discuss orthotic management in a High Radial Nerve Palsy.
- 10. Discuss various function of hand. How will you attain key pinch in a quadriplegic with no useful power?

- What is poly trauma? Describe the scoring method & principles of management of a patient with poly trauma in accident & emergency department.
- 2. Describe clinical features, diagnostic criteria and treatment of fat embolism syndrome.
- What is floating knee? Discuss its management in a 25 year old adult.
- Describe various clinical methods to diagnose anterior cruciate ligament injury. Describe post operative management of ACL reconstruction by a bone patellar tendon bone graft.
- 5. Discuss the principles of management of Non-union fracture neck femur in an adult.
- 6. What is a Toddlers fracture? Discuss its differential diagnosis and management.
- 7. How will you transport an organ after amputation to a sterilized centre for re-implantation? What is the order of implantation in a below elbow amputation.
- 8. Classify periprosthetic fracture following a total hip replacement.

 Discuss their management.
- 9. Discuss the principles and the biomechanics of intra-medullary nailing.
- 10. Classify Pilon fractures and discuss their management.

- What is multi system organ failure? What are indicators of mortality?
 Write briefly about its diagnosis and management.
- 2. Define and classify VIC. Describe its surgical and orthotic management in Grade II VIC of forearm
- 3. Describe the arches of the foot. Classify Flat Foot & briefly discuss the management principles of flat feet in a child.
- 4. What are the anatomical & physiological differences between neck shaft angle and version in a child and adult?
- 5. Discuss principle of chondroplasty in osteoarthritis of knee joint.
- 6. Define multidirectional instability of shoulder joint. Discuss its management
- 7. Discuss the role of injectible steroids following spinal injury.
- 8. Discuss various methods of preventing deep vein thrombosis following a total knee replacement. Discuss their merits & demerits.
- 9. What are indications of arthography in a hip? Discuss various approaches to aspirate the hip joint.
- 10. What is the indication & principle behind parathormone therapy for treatment of osteoporosis? What are its merits & demerits?

- 1. Femoroacetabular impingement syndrome.
- 2. Chronic recurrent multifocal osteomyelitis. Diagnosis and management.
- 3. Management of brachial artery injury in association with supracondylar fracture of humerus.
- 4. Differentiating features between osteonecrosis and transient migratory osteoporosis.
- 5. Discuss the diagnosis and clinical features of DVT in orthopedic surgery. Outline the management. What special precautions are required if post-operative epidural analgesia is used for 4-5 days.
- 6. Discuss the approach to a patient with suspected bony metastasis with unknown primary tumor.
- 7. Enumerate the radiological types of tuberculosis of hip. How does this classification help us in prognostication?
- 8. Discuss the approach to a patient of pelvic fracture with a suspected abdominal injury.
- 9. Enumerate various methods of ACL reconstruction. Discuss the pros & cons of each method.
- 10. Bone defects encountered during total knee replacement and their management.

- 1. Discuss the types of equinus contracture in cerebral palsy and its management.
- 2. Describe the anatomy of iliotibial band and the effect of its contracture on the lower limb. How do you clinically detect the contracture?
- 3. Renal osteodystrophy.
- 4. Sheurmans disease.
- 5. Pathophysiology of claw hand and its treatment.
- 6. Discuss the management of flexor tendon injury in zone II
- 7. Describe the orthotic management of an asensate foot particularly in reference to leprosy.
- 8. What are the various types of exercises? Discuss the benefits of indications of isometric exercises.
- 9. What is paraffin wax? How is it useful in treatment of orthopedic conditions? What are the indications and contraindications of wax bath therapy?
- 10. Define ankle foot orthosis. What are the plastic materials used in fabrication. Describe indications and care during daily use.

- 1. Describe the causes of ulnar wrist pain after healing of a distal radial fracture and discuss the management.
- 2. Damage control orthopedics.
- 3. Classify fractures of acetabulum and role of conventional radiology in the classification
- 4. Classify ankle injuries. Which fracture patterns have syndesmotic instability & how do you manage it
- 5. Classify fractures of the proximal humerus. What is the relevance of blood supply of humerus in planning management? how will you treat four part fractures
- 6. Discuss the advances in the management of periarticular fractures
- 7. Describe the mechanism of injury & clinical presentation of various incomplete spinal cord syndromes
- 8. Differentiating features in the patho anatomy & management of intracapsular fracture neck of femur in children and adults
- 9. Advances in treatment of osteoporotic fractures
- 10. Discuss the clinical features & management of Achilles tendinopathy in athletes

- 1. Biological therapy in inflammatory arthritis
- 2. Trochanteric flip osteotomy in surgical exposures of the hip joint
- 3. Rationale for using metallic implants in osteoarticular tuberculosis
- 4. Clinical differentiation between pre-ganglionic & postganglionic lesions of brachial plexus & its effect on the management
- 5. Transcutaneous nerve stimulation
- 6. Define femoral ante version. How do you detect it clinically? Discuss the role of ante version in orthopedics diagnosis & management
- 7. Pathophysiology of lumbar canal stenosis
- 8. What are bisphosphonates. Discuss the role of Bisphosphonates in various orthopedic disorders.
- 9. Describe the blood supply of a long bone. Discuss the effects of various modalities of internal fixation on the blood supply
- 10. Biodegradable orthopedic implants

- 1. Management of multiple ribs fracture with Haemo-pneumothorax
- 2. Filum Terminal Syndrome.
- 3. Management of skeletal metastasis.
- 4 Round Cell tumour. Discuss the management of multiple myeloma.
- 5 Osteoporosis.
- 6 Management of fat embolism.
- 7 Exertional compartment syndrome.
- 8 Management of haemarthrosis of knee developing following an injury.
- 9 Role of labeled white blood cells and multiphase bone scan in bone pathology.
- 10 Tuberculosis of the hip joint

- 1. Etiology and pathological anatomy of DDH.
- 2. Mid Carpal Instability.
- 3. Surgical principles of Flexor Tendon repair.
- 4 Klippel Feil Syndrome.
- Indications of amputation. Describe surgical principles of amputation in children and adults.
- 6 Pesplanus.
- 7 Role and mode of action of pharmacological treatment in C.P.
- 8 Calcaneus valgus deformity. Discuss the treatment in immature and mature foot.
- 9 Madelung deformity.
- 10 Shoulder Instability.

- 1. Indications of valgus osteotomy for fracture neck femur. Discuss pre-operative planning, implant choice, advantages and disadvantages of this procedure.
- 2. Guiding principle of removal of orthopaedic implants after fracture union. What are the current recommendations for removal of implants for commonly encountered fractures.
- 3. Classify periprosthetic fractures around the knee. Outline the treatment strategy.
- 4 Classify fractures of capitullum and discuss the management of each type.
- 5 Surgical anatomy of AC joint along with classification of AC joint injuries. Briefly discuss the management.
- What are the various protocols which have been used for pharmacological intervention in spinal cord injuries. What is the current opinion on pharmacological intervention?
- 7 Classify fractures of the pelvis. Briefly discuss the management of rotationally unstable and vertically stable injuries.
- 8 Various methods of fixing severely osteoporotic fractures.
- 9 What is LISS. Discuss its role in stabilizing fractures of the distal femur.
- What is Ballistics. Briefly describe the current management of ballistic injuries of the spine.

- 1. Biologic enhancement of fracture healing.
- 2. Bearing surface of total hip arthroplasty.
- 3. Causes and treatment of thoracic outlet syndrome.
- 4 What are musculo skeletal manifestations of retroviral infection.
- 5 High tibial osteotomy.
- 6 Discuss the pharmacological treatment of rheumatoid arthritis.
- 7 Structure and functions of articular cartilage.
- 8 Sickle Cell Disease.
- 9 Classify spondylolisthesis. Describe the management.
- 10 Renal rickets.