

	Competency	Clinician	Leader and member of the health care team and system	Communicator	Lifelong learner	Professional	Critical Thinker	Researcher
Topic	Skeletal Trauma, Poly trauma							
OR1.1	Describe and discuss the Principles of pre-hospital care and Casualty management of a trauma victim including principles of triage	3	3	3	2	3	3	2
OR1.2	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of shock	3	3	3	3	3	3	3
OR1.3	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of soft tissue injuries	3	2	2	2	2	2	2
OR1.4	Describe and discuss the Principles of management of soft tissue injuries	3	2	2	2	2	2	2
OR1.5	Describe and discuss the aetiopathogenesis, clinical features, investigations, and principles of management of dislocation of major joints, shoulder, knee, hip	3	2	3	2	2	2	2
OR1.6	Participate as a member in the team for closed reduction of shoulder dislocation / hip dislocation / knee dislocation	2	2	2	2	2	2	2
Topic	Fractures							
OR2.1	Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fracture of clavicle	3	3	3	3	3	3	3
OR2.2	Describe and discuss the mechanism of Injury, clinical features, investigations and plan management of fractures of proximal humerus	3	3	3	3	3	3	3
OR2.3	Select, prescribe and communicate appropriate medications for	3	1	2	3	3	3	3

	relief of joint pain							
OR2.4	Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of fracture of shaft of humerus and intercondylar fracture humerus with emphasis on neurovascular deficit	3	3	3	3	3	3	1
OR2.5	Describe and discuss the aetiopathogenesis, clinical features, mechanism of injury, investigation & principles of management of fractures of both bones forearm and Galeazzi and Monteggia injury	3	3	3	3	3	3	1
OR2.6	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of distal radius	3	3	3	3	3	3	2
OR2.7	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of pelvic injuries with emphasis on hemodynamic instability	3	3	3	2	3	3	1
OR2.8	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of spine injuries with emphasis on mobilisation of the patient	3	2	3	2	3	3	1
OR2.9	Describe and discuss the mechanism of injury, Clinical features, investigations and principle of management of acetabular fracture	3	2	2	2	2	2	1
OR2.10	Describe and discuss the aetiopathogenesis, mechanism of injury, clinical features, investigations and principles of management of fractures of proximal femur	3	2	2	2	1	1	1
OR2.11	Describe and discuss the aetiopathogenesis, mechanism of injury,	3	3	2	2	3	3	2

	clinical features, investigations and principles of management of (a) Fracture patella (b) Fracture distal femur (c) Fracture proximal tibia with special focus on neurovascular injury and compartment syndrome							
OR2.12	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Fracture shaft of femur in all age groups and the recognition and management of fat embolism as a complication	3	2	2	2	2	2	2
OR2.13	Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of: (a) Fracture both bones leg (b) Calcaneus (c) Small bones of foot	1	1	1	1	2	2	1
OR2.14	Describe and discuss the aetiopathogenesis, clinical features, Investigation and principles of management of ankle fractures	2	2	2	1	2	2	2
OR2.15	Plan and interpret the investigations to diagnose complications of fractures like malunion, non-union, infection, compartmental syndrome	2	1	2	2	2	2	2
OR2.16	Describe and discuss the mechanism of injury, clinical features, investigations and principles of management of open fractures with focus on secondary infection prevention and management	3	3	3	2	2	2	2
Topic	Musculoskeletal Infection							
OR3.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of Bone and Joint infections a) Acute Osteomyelitis	3	3	3	3	3	2	2

	b) Subacute osteomyelitis c) Acute Suppurative arthritis d) Septic arthritis & HIV infection e) Spirochaetal infection f) Skeletal Tuberculosis							
OR3.2	Participate as a member in team for aspiration of joints under supervision	3	3	3	2	2	3	2
OR3.3	Participate as a member in team for procedures like drainage of abscess, sequestrectomy/ saucerisation and arthrotomy	3	2	3	2	2	2	2
Topic	Skeletal Tuberculosis							
OR4.1	Describe and discuss the clinical features, Investigation and principles of management of Tuberculosis affecting major joints (Hip, Knee) including cold abscess and caries spine	2	2	2	1	2	2	3
Topic	Rheumatoid Arthritis and associated inflammatory disorders							
OR5.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of various inflammatory disorder of joints	2	1	2	2	2	2	2
Topic	Degenerative disorders							
OR6.1	Describe and discuss the clinical features, investigations and principles of management of degenerative condition of spine (Cervical Spondylosis, Lumbar Spondylosis, PID)	2	2	2	2	2	1	1
Topic	Metabolic bone disorders							
OR7.1	Describe and discuss the aetiopathogenesis, clinical features, investigation and principles of management of metabolic bone disorders in particular osteoporosis, osteomalacia, rickets, Paget's disease	3	2	3	2	2	2	2
Topic	Poliomyelitis							
OR8.1	Describe and discuss the aetiopathogenesis, clinical features,	1	1	1	1	1	1	1

	assessment and principles of management a patient with Post Polio Residual Paralysis							
Topic	Cerebral Palsy							
OR9.1	Describe and discuss the aetiopathogenesis, clinical features, assessment and principles of management of Cerebral palsy patient	2	2	2	2	2	2	2
Topic	Bone Tumors							
OR10.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of benign and malignant bone tumours and pathological fractures	3	2	3	2	2	2	3
Topic	Peripheral nerve injuries							
OR11.1	Describe and discuss the aetiopathogenesis, clinical features, investigations and principles of management of peripheral nerve injuries in diseases like foot drop, wrist drop, claw hand, palsies of Radial, Ulnar, Median, Lateral Popliteal and Sciatic Nerves	3	2	2	2	2	2	2
Topic	Congenital lesions							
OR12.1	Describe and discuss the clinical features, investigations and principles of management of Congenital and acquired malformations and deformities of: a. limbs and spine - Scoliosis and spinal bifida b. Congenital dislocation of Hip, Torticollis, c. congenital talipes equino varus	2	2	2	2	2	1	2
Topic	Procedural Skills							
OR13.1	Participate in a team for procedures in patients and demonstrating the ability to perform on mannequins / simulated patients in the following: i. Above elbow plaster ii. Below knee plaster	3	3	3	2	3	3	3

	iii. Above knee plaster iv. Thomas splint v. splinting for long bone fractures vi. Strapping for shoulder and clavicle trauma							
OR13.2	Participate as a member in team for Resuscitation of Polytrauma victim by doing all of the following : (a) I.V. access central - peripheral (b) Bladder catheterization (c) Endotracheal intubation (d) Splintage	3	3	3	3	3	3	3
Topic:	Counselling Skills							
OR14.1	Demonstrate the ability to counsel patients regarding prognosis in patients with various orthopedic illnesses like a. fractures with disabilities b. fractures that require prolonged bed stay c. bone tumours d. congenital disabilities	3	3	3	3	3	3	3
OR14.2	Demonstrate the ability to counsel patients to obtain consent for various orthopedic procedures like limb amputation, permanent fixations etc..	3	2	3	2	3	3	3
OR14.3	Demonstrate the ability to convince the patient for referral to a higher centre in various orthopedic illnesses, based on the detection of warning signals and need for sophisticated management	3	2	2	2	2	2	2
Integration								
Human Anatomy								
AN2.4	Describe various types of cartilage with its structure & distribution in	2	2	1	1	1	1	2
AN2.5	Describe various joints with subtypes and examples	2	1	1	1	1	1	2
AN8.4	Demonstrate important muscle attachment on the given bone	2	2	2	2	2	2	2
AN8.6	Describe scaphoid fracture and explain the anatomical basis of avascular necrosis	2	1	2	1	2	2	2

AN10.12	Describe and demonstrate Shoulder joint for– type, articular surfaces, capsule, synovial membrane, ligaments, relations, movements, muscles involved, blood supply, nerve supply and applied anatomy	1	2	1	1	1	1	2
AN11.4	Describe the anatomical basis of Saturday night paralysis	3	3	3	2	3	2	2
AN17.2	Describe anatomical basis of complications of fracture neck of femur.	3	2	2	3	3	3	3
AN17.3	Describe dislocation of hip joint and surgical hip replacement	3	2	2	2	2	1	2
2	Describe knee joint injuries with its applied anatomy	2	2	2	2	3	2	2
AN18.7	Explain anatomical basis of Osteoarthritis	2	2	2	2	3	2	2
AN19.4	Explain the anatomical basis of rupture of calcaneal tendon	2	1	1	1	2	1	2
AN19.6	Explain the anatomical basis of Flat foot & Club foot	2	1	2	1	1	1	2
AN19.7	Explain the anatomical basis of Metatarsalgia & Plantar fasciitis	1	1	2	2	1	2	2
AN50.4	Explain the anatomical basis of Scoliosis, Lordosis, Prolapsed disc, Spondylolisthesis & Spina bifida	2	2	1	1	1	2	1
Pathology								
PA33.1	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications of osteomyelitis	2	2	2	2	2	2	2
PA33.2	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications and metastases of bone tumors	2	2	1	2	2	2	2
PA33.3	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications and metastases of soft tissue tumors	2	2	2	2	1	2	2
PA33.4	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications of Paget's disease of the bone	2	2	2	1	2	2	2

Microbiology

MI4.2	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of bone & joint infections.	2	1	2	1	2	2	2
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Forensic Medicine & Toxicology

FM3.7	Describe factors influencing infliction of injuries and healing, examination and certification of wounds and wound as a cause of death: Primary and Secondary.	2	1	2	2	2	2	2
FM3.8	Mechanical injuries and wounds: Describe and discuss different types of weapons including dangerous weapons and their examination.	2	1	2	2	2	2	2
FM3.9	Firearm injuries: Describe different types of firearms including structure and components. Along with description of ammunition propellant charge and mechanism of fire-arms, different types of cartridges and bullets and various terminology in relation of firearm – calibre range, choking.	2	2	2	2	2	2	1
FM3.10	Firearm injuries: Describe and discuss wound ballistics-different types of firearm injuries, blast injuries and their interpretation, preservation and dispatch of trace evidences in cases of firearm and blast injuries, various tests related to confirmation of use of firearms	2	1	2	2	2	2	2
FM3.11	Regional Injuries: Describe and discuss regional injuries to head (Scalp wounds, fracture skull, intracranial haemorrhages, coup and contrecoup injuries), neck, chest, abdomen, limbs, genital organs, spinal cord and skeleton	2	2	3	2	2	2	2
FM3.12	Regional Injuries Describe and discuss injuries related to fall from height	3	3	2	2	2	3	2

	and vehicular injuries – Primary and Secondary impact, Secondary injuries, crush syndrome, railway spine.							
General Medicine								
IM7.5	Develop a systematic clinical approach to joint pain based on the pathophysiology	2	1	2	2	2	2	2
IM7.6	Describe and discriminate acute, subacute and chronic causes of joint pain	2	1	2	2	2	3	2
IM7.7	Discriminate, describe and discuss arthralgia from arthritis and mechanical from inflammatory causes of joint pain	2	1	2	2	2	3	3
IM7.8	Discriminate, describe and discuss distinguishing articular from periarticular complaints	2	1	2	2	2	3	2
IM7.9	Determine the potential causes of joint pain based on the presenting features of joint involvement	2	1	2	2	2	3	2
IM7.10	Describe the common signs and symptoms of articular and periarticular diseases	2	1	2	2	2	3	3
IM7.13	Perform a systematic examination of all joints, muscle and skin that will establish the diagnosis and severity of disease	3	3	3	2	3	3	3
IM7.17	Enumerate the indications for arthrocentesis	3	2	2	2	3	3	3
IM7.18	Enumerate the indications and interpret plain radiographs of joints	3	1	3	2	2	2	2
IM7.21	Select, prescribe and communicate appropriate medications for relief of joint pain	3	2	3	2	3	3	3
IM24.12	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of degenerative joint disease	3	2	3	2	3	3	2
IM24.13	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of falls in the elderly	3	2	3	3	3	3	2
IM24.14	Describe and discuss the aetiopathogenesis, clinical	3	3	3	3	3	3	3

	presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of common fractures in the elderly							
IM24.16	Describe and discuss the principles of physical and social rehabilitation, functional assessment, role of physiotherapy and occupational therapy in the management of disability in the elderly	3	2	3	3	3	3	3
Physical Medicine & Rehabilitation								
PM1.2	Define and describe disability, its cause, and magnitude, identification and prevention of disability	3	2	2	2	2	3	2
PM1.3	Define and describe the methods to identify and prevent disability	3	2	2	2	3	2	2
PM1.4	Enumerate the rights and entitlements of differently abled persons	3	2	3	3	3	3	2
PM4.1	Describe the common patterns, clinical features, investigations, diagnosis and treatment of common causes of arthritis	3	1	3	1	2	2	2
PM4.3	Observe in a mannequin or equivalent the administration of an intraarticular injection	3	2	2	2	2	2	2
PM4.5	Demonstrate correct assessment of muscle strength and range of movements	3	2	2	2	2	2	2
PM5.1	Enumerate the indications and describe the principles of amputation	2	2	2	3	3	3	2
PM5.2	Describe the principles of early mobilization, evaluation of the residual limb, contralateral limb and the influence of co-morbidities	3	2	2	3	3	3	2
PM5.3	Demonstrate the correct use of crutches in ambulation and postures to correct contractures and deformities	3	2	2	2	2	2	2
PM5.4	Identify the correct prosthesis for common amputations	2	2	2	1	2	2	2
PM6.3	Describe the principles of skin traction, serial casts and surgical	2	2	2	1	2	3	3

	treatment including contracture release, tendon transfer, osteotomies and arthrodesis.							
PM6.4	Describe the principles of orthosis for ambulation in PPRP	3	2	2	2	2	2	2
PM7.1	Describe and discuss the clinical features, diagnostic work up, work up diagnosis and management of spinal cord injury	3	3	3	2	2	3	2
PM7.2	Describe and demonstrate process of transfer, applications of collar restraints while maintaining airway and prevention of secondary injury in a mannequin/model	3	3	3	3	3	3	3
PM7.3	Perform and demonstrate a correct neurological examination in a patient with spinal injury and determine the neurologic level of injury	3	2	3	3	3	3	3
PM7.4	Assess bowel and bladder function and identify common patterns of bladder dysfunction	2	2	2	2	3	2	2
PM7.5	Enumerate the indications and identify the common mobility aids and appliances, wheel chairs	2	2	2	2	2	3	2
PM7.7	Enumerate and describe common life threatening complications following SCI like Deep vein Thrombosis, Aspiration Pneumonia, Autonomic dysreflexia	3	3	3	3	3	3	3
PM8.1	Describe the clinical features, evaluation, diagnosis and management of disability following traumatic brain injury	2	2	2	2	3	3	3