1) Non-union is a complication seen in all the following fractures except:
   A) Fracture of the lower end of tibia
   B) Fracture of the scaphoid
   C) Fracture neck of the femur
   D) Supracondylar fracture of the humerus

2) True about fracture healing except:
   A) Nutrition affects healing
   B) Stable fixation promotes healing
   C) Compression at fracture site causes non union
   D) Hormonal status affects healing

3) Stress fracture is not seen in
   A) Metatarsals
   B) Metacarpals
   C) Tibia
   D) Femur

4) Intramembranous ossification is seen in which bones:
   A) Pelvis
   B) Mandible
   C) Most Long bones
   D) None

5) Most common muscle damaged in rotator cuff:
   A) Suprapinatus
   B) Infraspinatus
   C) Subscapularis
   D) Teres minor

6) Most common joint to undergo recurrent dislocation is:
   A) Shoulder joint
   B) Knee joint
   C) Hip joint
   D) Ankle joint

7) Most frequently involved nerve in fracture distal shaft of the humerus:
   A) Radial nerve
   B) Ulnar nerve
   C) Median nerve
   D) Musculocutaneous nerve

8) Hill-Sach’s lesion is associated with:
   A) Neck of the humerus
   B) Recurrent dislocation of the shoulder
   C) Dislocation of the acromio-clavicular joint
   D) All of the above
9) Three bony point relationship around the elbow is maintained in:
A) Dislocation of the elbow
B) Fracture lateral condyle of humerus
C) Inter condylar fracture of humerus
D) Supra condylar fracture of humerus

10) Mal-union of supra condylar fracture of the humerus most commonly results in:
A) Flexion deformity
B) Cubitus varus
C) Extension deformity
D) Cubitus valgus

11) Tardy ulnar nerve palsy is commonly seen as a complication of:
A) Fracture lateral condyle of the humerus
B) Supra condylar fracture of humerus
C) Fracture olecranon process
D) Fracture head radius

12) Which of the following displacements is not seen in Colles’ fracture:
A) Dorsal tilt
B) Dorsal displacement
C) Ventral tilt
D) Lateral displacement

13) Most common nerve involvement in dislocation of lunate is:
A) Ulnar nerve
B) Posterior interosseous nerve
C) Median nerve
D) Anterior interosseous nerve

14) Avulsion of extensor tendon at base of the distal phalanx of a finger results in:
A) Mallet finger deformity
B) Hyper extension deformity
C) Swan neck deformity of finger
D) None of the above

15) Dinner fork deformity is seen in:
A) March fracture
B) Colles fracture
C) Supra condylar fracture
D) Fracture scaphoid

16) Bennett's fracture is seen in:
A) 1st metatarsal
B) 5th metacarpal
C) 1st metacarpal
D) 5th metatarsal

17) Avascular necrosis of femoral head is most commonly seen after:
A) Fracture shaft of the femur
B) Extracapsular fracture neck of the femur
C) Subtrochanteric fracture
D) Intracapsular fracture neck of the femur
18) A 84 year male with history of fracture neck of the femur 4 weeks old, the treatment of choice is:
A) SP nailing
B) Hemiarthroplasty
C) Mc Murray’s osteotomy
D) None of the above

19) Gallow’s traction is used for treatment of:
A) Fracture shaft femur
B) Fracture shaft of the tibia
C) Fracture neck of the femur
D) Fracture tibial spine

20) Which of the following test is positive in anterior cruciate ligament tear:
A) Anterior drawer test
B) Lachman test
C) Mc Murray’s test
D) A and B both

21) Patellar tendon bearing plaster of paris cast is indicated in:
A) Fracture patella
B) Fracture middle meniscus
C) Fracture femur
D) Fracture tibia

22) Most common associated injury along with fracture calcaneum is:
A) Fracture vertebrae
B) Fracture skull
C) Fracture fibula
D) Fracture rib

23) Whip-lash injury is caused due to :
A) Fall from height
B) Acute hyper extension of spine
C) A blow on the head
D) Acute hyper flexion of spine

24) Most common cause of Vertebra plana is:
A) Eosinophilic granuloma
B) Trauma
C) Ewing’s sarcoma
D) Paget’s disease

25) Saturday night palsy is :
A) Neurotemesis
B) Neuropraxia
C) Axonotemesis
D) None of the above

26) Ape thumb deformity is seen in the involvement of:
A) Ulnar nerve
B) Axillary nerve
C) Median nerve
D) Radial nerve
27) Froment’s sign is characteristic of:
A) Median nerve injury
B) Ulnar nerve injury
C) Radial nerve injury
D) Long thoracic nerve

28) Meralgia paresthetica is due to involvement of:
A) Femoral nerve
B) Sural nerve
C) Medial cutaneous nerve of thigh
D) Lateral cutaneous nerve of thigh

29) Phalen’s test is positive in:
A) De quervain’s disease
B) Carpel tunnel syndrome
C) Trigger thumb
D) Ulnar nerve injury

30) Limb elevated against gravity but not against force is which power of muscle:
A) Grade I
B) Grade II
C) Grade III
D) Grade IV

31) Perthe’s disease is:
A) Fracture neck of the femur
B) Fracture shaft of the femur
C) Osteochondritis of upper femoral epiphysis
D) All of the above

32) Which of the following test is useful in diagnosis of congenital dislocation of hip:
A) Barlow’s test
B) Thomas test
C) Hibb’s test
D) Laguerre’s test

33) Splint used in CTEV after correction:
A) Bohler-brown splint
B) Thomas splint
C) Steinbeck splint
D) None of the above

34) Madelung’s deformity is seen in:
A) Humerus
B) Distal radius
C) Carpal bones
D) Proximal ulna

35) Sprengel's deformity is:
A) Absence of clavicle
B) Acromioclavicular dislocation
C) Recurrent dislocation of shoulder
D) Congenital elevation of scapula
36) Commonest presentation of congenital dislocation of the knee is:
A) Flexion
B) Hyperextension
C) Varus
D) Valgus

37) Congenital coxa vara is treated by:
A) Fixation by SP nail
B) Bone grafting
C) Traction
D) Osteotomy

38) Most common cause of genu valgum in children is:
A) Osteoarthritis
B) Paget’s disease
C) Rickets
D) Rheumatoid arthritis

39) Caffey’s disease is:
A) Infantile cortical hyperostosis
B) Renal osteodystrophy
C) Osteomyelitis of the jaw in children
D) Chronic osteomyelitis in children

40) Osteomalacia is due to
A) Vitamin c deficiency
B) Vitamin e deficiency
C) Vitamin d deficiency
D) None

41) Wimberger sign is seen in:
A) Scurvy
B) Osteomalacia
C) Osteoporosis
D) Rickets

42) Hyper parathyroidism causes:
A) Multiple bone cysts
B) Sub periosteal bone resorption
C) Brown’s tumor
D) All of the above

43) Paget’s disease is also known as
A) Osteitis fibrosa cystica
B) Osteitis deformans
C) Osteochondritis
D) Osteomalacia

44) Commonest site of osteoporosis is:
A) Humerus
B) Scapula
C) Vertebra
D) Flat bones
45) Investigation of preference to diagnose “avascular necrosis” of the hip is:
A) USG
B) MRI
C) CT scan
D) X-ray of pelvis

46) Frieberg’s disease involves:
A) Calcaneal tuberosity
B) Second meta tarsal
C) Tibial tuberosity
D) Fifth metatarsal

47) Heberden’s Arthropathy is seen in:
A) Lumbar spine
B) Sacro iliac joint
C) Distal inter phalangeal joint
D) Sterno clavicular joint

48) All true about high tibial osteotomy except:
A) Deformity recurs after a long time
B) Done through the cancellous bone
C) Can correct varus over 30 degrees
D) Done in case of uni compartmental disease

49) False about Charcot’s joint in diabetes mellitus is:
A) Arthrocentesis
B) Total ankle replacement
C) Arthrodesis
D) Limitation of movements with bracing

50) In a patient with gouty arthritis synovial fluid aspiration will show:
A) Monosodium urate crystals
B) Calcium pyrophosphate crystals
C) Mononuclear leucocytosis
D) Poly morphonuclear leucocytosis

51) Bamboo spine with sacroilitis is found in:
A) Rheumatoid Arthritis
B) Osteo Arthritis
C) Psoriatic arthritis
D) Ankylosing spondylitis

52) Radiologically earliest bony change in osteomyelitis is:
A) Periosteal reaction
B) Presence of sequestrum
C) Callus formation
D) Loss of muscle and flat planes

53) Tom Smith arthritis involves:
A) Knee
B) Ankle
C) Hip
D) Wrist
54) All are associated with chronic osteomyelitis except:
A) Amyloidosis
B) Sequestrum
C) Metastatic abnormality
D) Myositis ossificans

55) Brodie's abscess is:
A) Acute osteomyelitis
B) Tubercular osteomyelitis
C) Septic arthritis
D) Sub acute osteomyelitis

56) Spina ventosa results from:
A) Sarcoidosis
B) Tuberculosis
C) Histocytosis x syndrome
D) None of the above

57) Painless effusion in joints in congenital syphilis are called:
A) Charcot's joint
B) Clutton's joint
C) Barton's joint
D) Chronic osteomyelitis

58) Wandering acetabulum is seen in:
A) Fracture acetabulum
B) Congenital dislocation of hip
C) Tuberculosis of hip
D) Dislocation of femur

59) Which of the following is not a benign tumor:
A) Osteoid osteoma
B) Enchondroma
C) Chordoma
D) Chondroma

60) A patient presents with pain in thigh which is relieved by aspirin, X ray shows radiolucent region surrounded by sclerosis. Most probable diagnosis is:
A) Osteoma
B) Osteoid osteoma
C) Osteoblastoma
D) Osteoclastoma

61) Most common tumor in the hand:
A) Enchondromas
B) Exostosis
C) Giant cell
D) Synovial sarcoma

62) Which of the following is true about giant cell tumor:
A) Usually present as a lytic lesion with sclerotic rim
B) Always benign
C) Seen in the age less than 18 years
D) Epiphyseal origin
63) All are predisposing factors of osteogenic sarcoma, except:
A) Paget’s disease of bone
B) Radiation
C) Viral infection
D) Bone infarction

64) Characteristic radiological feature of fibrous dysplasia:
A) Thickened bone matrix
B) Ground glass appearance
C) Cortical erosion
D) Bone enlargement

65) Twelve year old girl complains of pain in the thigh for three weeks with a low grade fever X-ray shows mass in the diaphyseal region of the left femur with overlying cortical erosion and soft tissue extension. Biopsy of the lesion shows numerous small round cells rich in PAS positive diastase sensitive granules, most likely histological diagnosis is:
A) Osteosarcoma
B) Osteoblastoma
C) Chondroblastoma
D) Ewing’s sarcoma

66) Most common tumor producing osteoblastic metastasis is from:
A) Kidney
B) Lung
C) Thyroid
D) Prostate

67) Solitary bone cyst is most common in:
A) Upper end of the humerus
B) Lower end of the humerus
C) Upper end of the fibula
D) Lower end of the femur

68) Striated vertebra is seen in:
A) TB spine
B) Chordoma
C) Hemangioma
D) Metastasis

69) Sudeck’s dystrophy is associated with all the symptoms, except:
A) Pain
B) Increase bone density
C) Sweating
D) Stiffness

70) Commonest site of fracture leading to fat embolism is:
A) Tibia
B) Humerus
C) Ulna
D) Femur
71) Most common nerve involved in Volkmann’s ischemic contracture of forearm is:
A) Radial
B) Median
C) Ulnar
D) Posterior interosseous

72) Brittle bone disease is:
A) Osteogenesis imperfecta
B) Osteopetrosis
C) Paget’s disease
D) Osteoporosis

73) All are the features of osteogenesis imperfecta, except:
A) Blue sclera
B) Cataract
C) Multiple fractures
D) Hearing loss

74) House maids knee is bursitis of :
A) Pre patellar bursa
B) Olecranon bursa
C) Infra patellar bursa
D) Ischial bursa

75) Pain and tenderness over the lateral condyle of the humerus with a painful dorsiflexion of the wrist is indicative of:
A) Golfer’s elbow
B) Pitcher’s elbow
C) Cricket elbow
D) Tennis elbow

76) Congenital block vertebrae is seen in:
A) Paget’s disease
B) Tuberculosis
C) Leukemia
D) Klippel-feil syndrome

77) Which of the following structures is fixed first during reimplantation of an amputated digit:
A) Bone
B) Vein
C) Artery
D) Nerve

78) Which of the following is a syndesmosis :
A) Inferior tibio fibular joint
B) Talo calcaneal joint
C) Calcaneao cuboid joint
D) Inter phalyngeal joint

79) The operative procedure known as micro fracture is done for:
A) Delayed union of the femur
B) Osteochondral defect of the femur
C) Non union of tibia
D) Loose bodies of ankle joint
80) Test for tight iliotibial band is:
A) Ober’s test
B) Simmand’s test
C) Osber’s test
D) Charnley’s test

81) Rate of newly synthesized osteoid mineralization can be best estimated by:
A) Tetracycline labeling
B) Alizarin red stain
C) Calcin stain
D) Van kossa stain

82) Trendelenberg’s test is positive in palsy of:
A) Gluteus maximus
B) Rectus femoris
C) Vastus medialis
D) Gluteus medius

83) Rugger jersey spine is seen in:
A) Fluorosis
B) Achondroplasia
C) Renal osteodystrophy
D) Marfan’s syndrome

84) Most common cause of death after total hip replacement is:
A) Anemia
B) Infection
C) Thromboembolism
D) Pneumonia

85) Ring sequestrum is seen in:
A) Typhoid osteomyelitis
B) Chronic osteomyelitis
C) Tubercular osteomyelitis
D) Amputation stump

86) Which of the following is true about a phantom limb:
A) Occurs in leprosy
B) Follow amputation
C) Follow a psychiatric illness
D) After filiarisis

87) Myodesis is employed in amputations for all of the following indications, except:
A) Trauma
B) Tumor
C) Ischemia
D) Children

88) Vascular repair to be done in which of the following Gustilo Anderson type of open injury:
A) IIIb
B) I
C) II
D) IIIc
89) All are true for Glomus tumor except:
A) Arise from glomus like cells
B) Symptoms include pain, cold sensitivity, tenderness
C) Subungual
D) Symptoms may persist for years before diagnosis

90) All are bone resorption markers used in monitoring the response to anti-osteoporotic therapy except:
A) Pyridinoline (PYD)
B) Procollagen type 1 N terminal propeptide (P1NP)
C) Deoxypyridinoline (DPD)
D) C-terminal Cross linked telopeptide (CTX)

91) The obturator oblique view of the Pelvis shows all except:
A) Anterior column
B) Posterior Rim
C) Obturator ring
D) Pelvic brim

92) Metal on metal articulation should be avoided in:
A) Osteonecrosis
B) Inflammatory arthritis
C) Young female
D) Revision surgery

93) Normal bone remodeling in response to stress was described by:
A) Pauwels
B) Kuntscher
C) Wolff
D) Hugh Owen Thomas

94) Salmonella osteomyelitis is common in:
A) Sickle cell disease
B) HIV
C) IV drug abusers
D) Pregnancy

95) Shepherd's crook deformity is seen in:
A) Adamantinoma
B) Non-ossifying fibroma
C) Fibrous cortical defect
D) Fibrous dysplasia

96) Indication of surgical compartmental release in compartmental syndrome in any compartment is absolute pressure greater than:
A) 15mm Hg
B) 30mm Hg
C) 20mm Hg
D) 50mm Hg

97) Palmar interossei are involved in:
A) Ulnar nerve palsy
B) Median nerve palsy
C) Medial nerve palsy
D) Erb's palsy
98) Multiple bone metastasis are diagnosed by:
A) Ga 67 scan
B) MRI
C) In 127 scan
D) Tc 99 scan

99) Combined anteversion test in THR should be:
A) 30-40 degree
B) 21-28 degree
C) 47-54 degree
D) 19-25 degree

100) VEPTR is:
A) Method of predicting curve progression in Infantile scoliosis
B) Device used for management of Scoliosis in children
C) Phenomenon seen in curve progression in children more than 8 years of age
D) Technique used for management of scoliosis in adults