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TEE/BPA505/2019/2021 - 22



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BRAINWARE UNIVERSITY

Term End Examination 2021 - 22

Programme – Bachelor of Science in Physician Assistant

Course Name – Orthopedics

Course Code - BPA505

(Semester V)

Time : 1 Hr.15 Min.

Full Marks : 60

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question)

1 x 60=60

Choose the correct alternative from the following :

- (1) Muscles involved in Volkman's ischemic contracture
 - a) Flexor pollicis longus
 - b) Flexor profundus
 - c) Flexor sublimis
 - d) All of these
- (2) Medial meniscus is more vulnerable to injury because of?
 - a) Its fixity to tibial collateral ligament
 - b) its semicircular shape
 - c) action of adductor magnus
 - d) its attachment to fibrous capsule
- (3) Injury to the popliteal artery in fracture lower end of femur is often due to
 - a) Distal fragment pressing the artery
 - b) Proximal fragment pressing the artery
 - c) Tight plaster
 - d) Hematoma
- (4) In transverse fracture of the patella the treatment is
 - a) Excision of small fragment
 - b) Wire fixation
 - c) Plaster cylinder
 - d) Patellectomy
- (5) Myositis ossificans is commonly seen at the ____ joint
 - a) Hip
 - b) Knee
 - c) Elbow
 - d) Shoulder
- (6) The most important factor in fracture healing is
 - a) Good alignment
 - b) Accurate reduction and 100% apposition of fractured fragments
 - c) Immobilization
 - d) Adequate calcium intake
- (7) The most preferred treatment of fracture of neck of femur of a person is
 - a) Hemiarthroplasty
 - b) Total hip treatment
 - c) conservative treatment
 - d) closed reduction , internal fixation
- (8) Which is not a principle of compound fracture treatment?

- a) No tendon repair
c) Wound debridement
- b) Aggressive Antibiotic cover
d) Immediate Wound closure
- (9) Injury to the popliteal artery in fracture lower end of femur is often due to?
a) Distal fragment pressing the artery
c) Tight plaster
b) Proximal fragment pressing the artery
d) Hematoma
- (10) In transverse fracture of the patella, the treatment is
a) Excision of small fragment
c) Plaster cylinder
b) Wire fixation
d) Patellectomy
- (11) March fracture affects
a) Neck of 2nd metatarsal
c) Neck of 1st metatarsal
b) Body of 2nd Metatarsal
d) Fracture of lower end of tibia
- (12) Myositis ossificans is commonly seen at the
a) Hip
c) Elbow
b) Knee
d) Shoulder
- (13) Commonest complication of extracapsular fracture of neck of femur is
a) Non Union
c) Malunion
b) ischemic necrosis
d) pulmonary complications
- (14) A segmental compound fracture tibia with 1cm skin wound is classified as
a) Type I
c) Type III
b) Type II
d) Type IV
- (15) Treatment after removal of plaster for supracondylar fracture of humerus
a) active mobilization at elbow point
c) no treatment
b) massage
d) passive movements at elbow
- (16) Volkmann's ischaemic contracture is due to
a) Arterial injury
c) Nerve injury
b) Venous injury
d) Increase of compartment pressure in the limb
- (17) Treatment of fracture clavicle in an infant is best treated by
a) Cuff and sling
c) Figure of 8 bandage
b) Open reduction
d) Shoulder cast
- (18) Late complication of acetabular fracture
a) Avascular necrosis of head of femur
c) Fixed deformity of the hip joint
b) Avascular necrosis of iliac crest
d) secondary osteoarthritis of hip joint
- (19) Treatment of anterior dislocation of shoulder is by
a) Kocher's manoeuvre
c) Barlow's manoeuvre
b) Dennis Browne splint
d) Surgery
- (20) Patient comes with fracture of femur in an acute accident thing to do is
a) Secure airway and treat the shock
c) Physical examination
b) Splinting
d) X Rays
- (21) On an x-ray, onion peel appearance is seen in?
a) osteoclastoma
c) Ewing's sarcoma
b) Osteosarcoma
d) osteochondroma
- (22) In which carcinoma, bony metastasis is not seen.
a) Bronchus
b) Pelvis

- c) Breast
 (23) Which of these is a marker for bone formation?
 a) serum nucleotidase
 c) osteocalcin
- d) Testis
 b) urinary calcium
 d) tartrate-resistant acid phosphate
- (24) Which of the following agents doesn't decrease bone resorption in osteoporosis?
 a) Strontium ranelate
 c) Teriparatide
- b) Risedronate
 d) Raloxifene
- (25) The characteristic feature of Blount's disease is _____.
 a) Genu varum
 c) Coxa valga
- b) Genu valgum
 d) Coxa vara
- (26) Which of these is the most reliable method for detecting bone metastasis?
 a) CT scan
 c) Radiography
- b) SPECT
 d) MRI
- (27) _____ is not a benign tumor.
 a) Chordoma
 c) Enchondroma
- b) Chondroma
 d) Osteochondroma
- (28) The starting point of Tuberculosis of the spine is _____
 a) nucleolus pulposus
 c) paravertebral joints
- b) vertebral body
 d) annulus fibrosis
- (29) _____ is the commonest site of skeletal tuberculosis.
 a) Radius
 c) Vertebrae
- b) Tibia
 d) Humerus
- (30) Triad of Klippel Feil syndrome consists of all these except _____.
 a) Short neck
 c) Low hairline
- b) Limited neck movements
 d) Elevated scapula
- (31) All are true regarding synovial sarcoma except?
 a) Usually seen in individuals less than 50 years of age
 c) More common at extra-articular sites
- b) Originates from the synovial lining
 d) Knee and foot are commonly involved
- (32) Distal interphalangeal is a joint that is not involved in?
 a) neuropathic arthropathy
 c) multicentric histiocytosis
- b) psoriatic arthritis
 d) rheumatoid arthritis
- (33) _____ is most often involved in march fracture.
 a) 1st metatarsal
 c) 2nd metatarsal
- b) 3rd metatarsal
 d) Both 2 and 3
- (34) Which of the following is a true statement about sequestrum and involucrum?
 a) Sequestrum is a sheath of new bone formation
 c) Involucrum is surrounded by sequestrum
- b) Involucrum is a piece of dead bone
 d) Sequestrum is surrounded by an involucrum
- (35) Gallow's traction is used for?
 a) Fracture humerus
 c) Fracture neck of the femur
- b) Fracture tibia
 d) Fracture shaft of the femur
- (36) The radiological feature of _____ is soap bubble appearance.
 a) osteoid osteoma
- b) chordoma

- c) osteosarcoma
d) osteoclastoma or GCT
- (37) In which of the following Osteoarthritis is not involved?
a) distal interphalangeal joints
b) knee joint
c) hip joint
d) metacarpophalangeal joint of the thumb
- (38) Which of the following is not true about the fracture of the atlas vertebrae?
a) CT scans should be done for diagnosis
b) Atlantooccipital fusion may sometimes be needed
c) Quadriplegia is seen in 80% of cases
d) Jefferson fracture is the most common type
- (39) Which of the following is not involved in pelvic fracture?
a) Ischial tuberosities
b) Pubic rami
c) Acetabulum
d) Alae of ileum
- (40) Which of these malignant tumors is radioresistant?
a) Osteosarcoma
b) Ewing's sarcoma
c) Neuroblastoma
d) Retinoblastoma
- (41) Which of the following is not true about exostosis?
a) Malignant transformation may occur
b) It occurs at the growing end of the bone
c) It is covered by a cartilaginous cap
d) Growth continues after skeletal maturity
- (42) Metabolic bone disease is caused by excess intake of which vitamin?
a) vit A
b) Vit B complex
c) Vit D
d) None of these
- (43) Osteoporosis is related with _____.
a) late childbirth
b) family history present
c) reduced weight for height
d) Smoking
- (44) Due to injury of _____ nerve, Trendelenburg test is positive.
a) obturator nerve
b) superior gluteal nerve
c) pudendal nerve
d) inferior gluteal nerve
- (45) Which of these conditions is least likely to present as an eccentric osteolytic lesion?
a) Giant cell tumor
b) Simple bone cyst
c) Aneurysmal bone cyst
d) Fibrous cortical defect
- (46) Which of the following is not a cause of a sudden increase in pain in osteochondroma?
a) Fracture
b) Sarcomatous change
c) Degenerative changes
d) Bursitis
- (47) Bones act as a storage reservoir for all of the following substances except:
a) Magnesium
b) Calcium
c) Phosphate
d) Glycogen
- (48) Concerning periosteum, which of the statements is false?
a) Periosteum is made of two layers
b) Periosteum provides the predominant blood supply to bone in adults
c) Periosteum is thicker in children than in adults
d) Periosteum is continuous with the joint capsule
- (49) Osteoblasts:
a) Produce acid to resorb bone.
b) Are dormant cells trapped within the layers of lamellar bone.
c) Are bone-forming cells
d) Are found within the synovium of joints.
- (50) Which of the following types of cartilage lines healthy synovial joints?

- a) Fibrocartilage
c) Elastic cartilage
- b) Hyaline cartilage
d) None of these
- (51) Articular cartilage:
- a) Is a poorly structured substance.
c) Is very good at resisting shear.
- b) Has eight distinct zones.
d) Generates high levels of friction to stabilise the joint.
- (52) Articular cartilage has all of the following properties except:
- a) Avascular
c) Aneural
- b) A lymphatic
d) Acellular
- (53) Which of the following statements is true regarding the menisci of the knee?
- a) A normal knee has one horseshoe-shaped meniscus.
c) Menisci help with distribution of load across the knee.
- b) Menisci are composed of elastic cartilage.
d) The meniscus has a good blood supply and tears therefore often heal effectively.
- (54) Which of the following statements is false?
- a) Ligaments connect bone to bone
c) Tendons and ligaments are made of longitudinally arranged collagen fibres.
- b) Tendons connect muscle to bone.
d) Ligaments are less elastic than tendons.
- (55) Regarding calcium, which statement is false?
- a) Calcium is a vital part of muscle function and abnormal levels may result in tetany or cardiac arrhythmia.
c) Plasma proteins bind around 50% of circulating calcium, the exact level dependent on pH.
- b) 75% of total body calcium is stored in bone.
d) In its stored state, calcium is stored bound to phosphate.
- (56) Select which substance best matches the description: 'Polypeptide produced in chief cells in response to hypocalcaemia, it acts to stimulate osteoclasts to release Ca and PO₄ from bone, increases hydroxylation of vitamin D in the kidneys and increases renal excretion of PO₄.'
- a) Parathyroid hormone (PTH)
c) 1,25-dihydroxycholecalciferol
- b) 25-hydroxycholecalciferol
d) Calcitonin
- (57) An octogenarian suffers a vertebral wedge fracture when sitting down heavily. She subsequently has a DEXA scan to evaluate for the presence of osteoporosis. According to the WHO, what defines severe osteoporosis?
- a) T-score >0.5
c) Z-score >0.5
- b) T-score -0.5 to -1.5
d) T-score -2.5
- (58) All of the following are risk factors for osteoporosis except:
- a) Female sex
c) High body mass index
- b) Dietary deficiency of calcium
d) Smoking
- (59) All of the following are treatments for osteoporosis except:
- a) Bisphosphonates
c) Vitamin D supplements
- b) A period of non-weightbearing
d) Calcium supplements
- (60) The condition that results in a quantitative reduction of qualitatively normal bone is:
- a) Osteopetrosis
c) Osteoporosis
- b) Osteomalacia
d) Osteomyelitis