

1) Trendelenburg's sign is positive in the paralysis of following muscle:

- a. Gluteus maximus
- ☒ b. Gluteus medius
- c. Tensor fascia lata
- d. Quadratus femoris
- e. Piriformis

2) During mastectomy (removal of breast) and removal of axillary nodes surgeon noticed a lateral thoracic vein running around a group of axillary nodes? The above mentioned nodes are most likely which of the following?

- a. Apical
- ☒ b. Pectoral
- c. Lateral
- d. Central
- e. Posterior

3) Tennis player came with complaint of pain at rest and at night, particularly if lying on the affected shoulder and weakness when lifting or rotating the arm. Physician diagnosed it be an injury in the region of shoulder and involvement of four muscles were predicted. What possible condition it could be?

- ☒ a. Rotator cuff tear
- b. Tendinopathy
- c. Bursitis
- d. Frozen shoulder
- e. Acromioclavicular joint injury

4) A 26-year-old male was brought to emergency with complain of numbness in medial three toes of left foot. He was diagnosed as tarsal tunnel syndrome. Which of the following nerve is most likely involved in this case.

- a. Femoral nerve
- ☒ b. Tibial nerve
- c. Superficial peroneal nerve
- d. Deep peroneal nerve
- e. Common peroneal nerve

5) During a limb surgery, the surgeon ligates the posterior tibial artery at its origin. Blood flow would be absent in which of the following artery?

- a. Anterior tibial
- b. Descending genicular
- c. Dorsalis pedis
- ☒ d. Lateral plantar
- e. Profunda femoris

6) An infantry army officer develops painful flat foot after several years of service including hundreds of miles of marches. The pain is more on the medial aspect of sole. Which of the following structures is most likely strained in this condition?

- a. Calcaneal (Achilles) tendon
- b. Deltoid ligament
- c. Extensor retinaculum
- d. Plantar calcaneocuboid (long plantar) ligament
- ☒ e. Plantar calcaneonavicular (spring) ligament

- Q 7) A 50 years old female was referred to the general surgeon by her GP. She was complaining of having a painless swelling on the medial side of upper thigh. On examination, a herniation was found below and lateral to the pubic tubercle. This herniation is most likely through:
- ☒ a. Femoral canal
 - b. Femoral vein
 - c. Femoral sheath
 - d. Deep inguinal ring
 - e. Superficial inguinal ring
- Q 8) The following muscle originates from the upper eight rib, inserted into the medial border and inferior angle of scapula and supplied by the long thoracic nerve:
- a. Pectoralis major
 - b. Pectoralis minor
 - c. Subclavius
 - d. Levator scapulae
 - ☒ e. Serratus anterior
- Q 9) Coracobrachialis muscle originates from coracoid process of scapula and attaches to medial aspect of shaft of humerus. Which of the following movements of arm is associated by coracobrachialis?
- ☒ a. Flexion
 - b. Extension
 - c. Abduction
 - d. Rotation
 - e. Supination
- Q 10) A 35-year-old female housemaid comes to the OPD with right knee pain. It began abruptly a few days earlier and improved only minimally with NSAIDs. The patient spends hours on her knees while working. Examination reveals no visible erythema or abrasions, but palpation reveals intense localized pain. Although the patient's range of motion is normal, she experiences severe pain when climbing stairs. Which of the following bursae is most likely affected?
- a. Anserine
 - ☒ b. Prepatella
 - c. Popliteal
 - d. Suprapatellar
 - e. Gastrocnemius
- Q 11) A male patient presented with difficulty ambulating and right thigh pain. On examination there is weakness with hip flexion and knee extension, Extension, abduction and adduction of hip are intact and knee flexion is also intact. Which of the following muscles is most likely injured in this patient?
- a. Psoas muscle
 - b. Sartorius
 - c. Pectineus
 - ☒ d. Rectus femoris
 - e. Obturator internus
- Q 12) A patient after a motor vehicle accident presented with pain and weakness in the right arm. On physical examination, his right arm is adducted, medially rotated, extended and pronated. Which of the following injuries may have resulted in this condition?
- ☒ a. Traction of upper trunk (C5-C6 roots)
 - b. Traction of lower trunk (C8-T1 roots)
 - c. Lesion of long thoracic nerve
 - d. Lesion in distal median nerve
 - e. Lesion of proximal ulnar nerve
- Q 13) Superficial Branch of the Ulnar Nerve along with ulnar artery lie in a fibro-osseous tunnel, the tunnel of Guyon. Compression of ulnar nerve in tunnel of Guyon will lead to loss of sensation at:
- a. Dorsal aspect of medial three and half digits
 - b. Dorsal aspect of the little finger and the medial half of the ring finger.
 - c. Palmar surface of tips of four and half digits
 - ☒ d. Palmar surface of the little finger and the medial half of the ring finger.
 - e. Palmar aspect of lateral for fingers

- Q 14) A 33 years old pregnant female came to neurology OPD with complaints of tingling and numbness of right hand with pain and needle sensations especially in thumb and index finger. On examination fingers of right hands were also swollen. Consultant diagnosed her with carpal tunnel syndrome. Which of the following nerve is compressed in this condition
- Axillary nerve
 - ☒ Median nerve
 - Musculocutaneous nerve
 - Radial nerve
 - Ulnar nerve
- Q 15) A bagger at the roadside was suffering from wrist drop of left hand. Most likely the site of injury is:
- Carpel tunnel
 - Guyon tunnel
 - Head of ulna
 - ☒ Radial groove of humerus
 - Wrist joint
- Q 16) Two intermuscular septa and Interosseous membrane divide the leg into three compartments: anterior, posterior and lateral. Nerve supply of the lateral compartment of leg is
- Anterior tibial
 - Deep fibular nerve
 - Femoral nerve
 - ☒ Superficial fibular nerve
 - Posterior tibial nerve
- Q 17) Regarding the popliteal fossa, which of the following structures is the most deeply placed in the popliteal fossa?
- Small saphenous vein
 - ☒ Popliteal artery
 - Tibial nerve
 - Common Fibular nerve
 - Posterior cutaneous nerve of thigh
- Q 18) Which of the following muscle initiates unlocking of the knee from locked position?
- ☒ Popliteus
 - Gastrocnemius
 - Sartorius
 - Quadriceps femoris
 - Adductor magnus
- Q 19) Foot baller injured ankle while tackling the ball. His foot was forcefully everted while playing. The doctor diagnosed a deltoid ligament sprain. Which of the following bones doesn't get the attachment of the ligament?
- Talus
 - ☒ Cuboid
 - Navicular
 - Calcaneum
 - Medial malleolus
- Q 20) When the superficial peroneal nerve is severed by knife injury, which of the following muscle will be paralyzed?
- Extensor hallucis longus
 - Peroneus tertius
 - Extensor digitorum longus
 - ☒ Peroneus longus
 - Extensor digitorum brevis
- Q 21) A 30-year-old man falls from 3rd floor and lands on his feet in the parking area of his apartment. Radiographs reveal a fracture of the sustentaculum tali. The muscle passing immediately beneath it that would be adversely affected is the:
- Peroneus longus
 - ☒ Flexor hallucis longus
 - Tibialis anterior
 - Tibialis posterior
 - Peroneus tertius

- Q 22) 40-year-old women came to emergency department with the sign of foot drop. Which of the following nerves could have been damaged?
- Deep peroneal nerve
 - Superficial peroneal nerve
 - Anterior tibial nerve
 - Posterior tibial nerve
 - Femoral nerve
- Q 23) Which one of the following muscles of medial thigh can skip injury if the main nerve of the compartment is severed?
- Adductor Brevis
 - Gracilis
 - Adductor Longus
 - Obturator Externus
 - Pectineus
- Q 24) During a motor bike accident, a 15-year-old boy lost sensory innervation from the medial side of leg and foot. Which of the following statements is incorrect regarding the nerve involved?
- Mixed nerve
 - Branch of femoral nerve
 - Content of adductor canal
 - No motor functions.
 - Accompany femoral vessels
- Q 25) An athlete injured his long plantar ligament while playing leading to a pain around the medial longitudinal arch. Which bone forms the summit of the arch?
- Talus
 - Cuboid
 - Navicular
 - Calcaneum
 - Medial cuneiform
- Q 26) Which of the following is not classified as hypaxial muscles?
- Limb extensors
 - Limb flexors
 - Neck extensors
 - Trunk muscles
 - Diaphragm
- Q 27) An orthopedic surgeon is performing arthroscopy of the knee joint of a 30 year old basketball player. He notices a damaged ligament that is attached to the medial wall of the lateral femoral condyle and inserted into the intercondylar eminence of tibia. Which one of the intracapsular ligaments is he observing?
- anterior cruciate ligament
 - posterior cruciate ligament
 - lateral collateral ligament
 - medial collateral ligament
 - patellar
- Q 28) A 50 year old female came to neurological OPD with the complain of numbness of the hand where she was diagnosed as a case carpal tunnel syndrome which of the following area of the hand spared in the above condition discuss
- Nail bed of index figure
 - Skin over thenar eminence
 - Palmar surface of thumb
 - Palmar surface of index finger
 - Palmar surface of middle finger
- Q 29) Which of the following carpometacarpal joints allows adequate adduction and abduction in addition to flexion and extension?
- First
 - Second
 - Third
 - Fourth
 - Fifth

30) Which of the following bones does not take part in the formation of wrist joint?

- a. Radius
- b. Ulna
- c. Scaphoid
- d. Lunate
- e. Triquetral

31) Which of the following muscles contract simultaneously to cause adduction at the wrist joint?

- a. Flexor carpi radialis and extensor carpi radialis
- b. Flexor carpi ulnaris and extensor carpi ulnaris
- c. Flexor carpi ulnaris and flexor carpi radialis
- d. Extensor carpi ulnaris and extensor carpi radialis
- e. Flexor carpi radialis and extensor carpi ulnaris

32) Which type of joint is the superior radio-ulnar joint?

- a. Pivotal
- b. Ball-and-socket
- c. Hinge
- d. Saddle
- e. Planar

33) Choose the incorrect statement regarding biceps brachii

- a. Short head has intra capsular origin
- b. Tendon inserted to radial tuberosity
- c. Innervated by branch of lateral cord of brachial plexus
- d. Chief supinator of radioulnar joint
- e. Bicipital aponeurosis forms the roof of cubital fossa

34) In supra condylar fracture of humerus, the muscle of superficial group of anterior compartment of forearm spared from the injury is the

- a. Flexor carpi radialis
- b. Flexor ulnar ulnaris
- c. Flexor digitorum superficialis
- d. Pronator teres
- e. Palmaris longus

HISTOLOGY

35) With respect to the microscopic features of muscle, T-tubules are extension of which one of the following structure?

- a) Nucleus
- b) Rough endoplasmic reticulum
- c) Sarcoplasmic reticulum
- d) Sarcoplasm
- e) Sarcolemma

36) A student is examining slide of bone under light microscope. Which of the following bone cells will he find along the surfaces of bone?

- a) Osteoblasts
- b) Osteocytes
- c) Osteon
- d) Chondrocytes
- e) Lymphocytes

37) During a demonstration, structure and growth of the long bones were under discussion.

Long bone grows in length as a result of:

- a) Removal of calcified cartilage
- b) Endochondral deposition of bone tissue
- c) Interstitial growth of cartilage tissue
- d) Appositional deposition of bone tissue
- e) Interstitial growth of bone tissue

Q 38) Removal of the apical ridge leads to

- a) regeneration of the entire limb bud from underlying mesoderm
- b) formation of structures proximal to the apical ridge, but no formation of new distal structures
- c) degeneration of the limb bud
- d) regeneration of a new apical ridge from adjacent epidermal tissue
- e) continued development in the progress zone, once the apical ridge has induced progress zone formation

Q 39) The most likely feature to be observed as a result of failure of apoptosis is that:

- a) The bones and muscles would not form.
- b) The overlying epidermis would not form.
- c) The proximo-distal patterning would not occur normally.
- d) All the bones would form as the same structure.
- e) The digits would be connected by webbing, and would not be separated.

Q 40) Somites develop from which of the following embryological derivations?

- a) Endoderm
- b) Ectoderm
- c) Paraxial mesoderm
- d) Lateral plate mesoderm
- e) Neural crest cells

Q 41) The Z-Disk is made up of which of the following protein?

- a. Actin
- b. C protein
- c. Myomesin
- d. Nebulin
- e. α -Actinin

Q 42) The Actin filament is attached to the Z-Disk with the help of which of the following?

- a. Actin
- b. Attached directly
- c. Myomesin
- d. Nebulin
- e. Tropomyosin

Q 43) What is the primary function of Titin in skeletal muscle?

- a. Acts as an ATPase enzyme.
- b. Anchors the actin filaments to the Z-lines.
- c. Facilitates the release of calcium ions from the sarcoplasmic reticulum
- d. Provides elasticity and recoil to muscle fibers after stretching
- e. Stabilizes the myosin filaments

Q 44) What is the distance called between one actin filament and the next actin filament on the same sarcomere?

- a. A-band
- b. H-zone
- c. I-band
- d. M-line
- e. Z-line

Q 45) The force of a tetanic contraction is greater than that of a twitch contraction due to which of the following?

- a. Increased release of Acetylcholine
- b. Increased Ca^{++} release
- c. Rapid action potentials along the T-tubule
- d. Decreased K^+ in extracellular fluid
- e. Longer duration of ACh at neuromuscular junction

Q 46) In a resting skeletal muscle, what is the optimum length of sarcomere at which it is able to contract with maximum force of contraction?

- a. 1.65 μm
- b. 1.8 mm
- c. 2.2 μm
- d. 2.5 μm
- e. 3.0 μm

Q 47) Large amounts of ATP are cleaved to form ADP during the contraction process, and the greater the amount of work performed by the muscle, the greater the amount of ATP that is cleaved. What is the name of this phenomenon?

- a. Actin Power-stroke theory
- b. Cross-Bridge theory
- c. ~~Fun effect~~
- d. Power stroke
- e. Ratchet theory of contraction

Q 48) A 28-year-old lady comes with the complaints of weakness in the muscles initially of face and neck which lead to double vision and difficulty in swallowing, respectively. Later the muscles of upper and lower limbs were also involved. She says that the muscle weakness becomes more prominent in the evening. This condition is produced due to antibodies against which of the following?

- a. Acetylcholine
- b. Acetylcholine receptors *Myasthenia gravis*
- c. Acetylcholinesterase
- d. Motor end plate
- e. Presynaptic membrane

Q 49) An experiment is conducted to determine the difference between skeletal and smooth muscle contraction. Isolated guinea pig intestine and skeletal muscle are stimulated, and the contractile properties of each are studied. The two muscle types differ because skeletal muscle contraction, but not smooth muscle contraction, requires which of the following?

- a. Actin
- b. Calmodulin
- c. Myosin
- d. Myosin light-chain kinase
- e. ~~Troponin~~

Q 50) Which of the following factors primarily determines the strength of a muscle contraction?

- a. The length of the muscle at rest
- b. The number of muscle fibers recruited
- c. The presence of acetylcholine receptors
- d. The thickness of the sarcolemma
- e. The type of muscle fiber (fast-twitch or slow-twitch)

Q 51) In a scenario where there is insufficient ATP available in a muscle fiber during contraction, what is the immediate consequence?

- a. Calcium ions are released from the sarcoplasmic reticulum
- b. Cross-bridges cannot detach, leading to prolonged contraction
- c. The muscle fiber relaxes immediately
- d. The muscle fiber remains contracted indefinitely
- e. Troponin binds to myosin

Q 52) A middle-aged individual experiences muscle stiffness, particularly in the face and neck muscles, along with difficulty swallowing and speaking. Electromyography (EMG) reveals repetitive electrical discharges during muscle relaxation. What autoimmune disorder of neuromuscular transmission is this consistent with?

- a. Charcot-Marie-Tooth disease
- b. Lambert-Eaton myasthenic syndrome
- c. ~~Myasthenia gravis~~
- d. Myotonic dystrophy
- e. Polymyositis

Q 53) A five-year-old girl suffering from severe Hurler syndrome presents with Corneal clouding, mental retardation, dwarfing and coarse facial features. Degradation of mucopolysaccharides dermatan sulfate and Heparan sulfate are affected. Enzyme deficient in this scenario is:

- a) Heparan sulfamidase deficiency
- b) Iduronate sulfatase
- c) N-Acetylglucosaminidase
- d) ~~α -L-Iduronidase~~
- e) β -Glucuronidase

Q 54) A newborn present with multiple fractures with no history of major trauma, kyphosis and delayed wound healing. Pediatrician suspects disease involving inability of collagen to form fibers properly leading to bowing or fractures of long bones.

- a) Osteogenesis imperfecta
- b) Osteomalacia
- c) Osteoporosis
- d) Paget's disease
- e) Rickets

Q 55) 3 Enzyme for the cross-linking of collagen fibers, responsible to the strength and stability of collagen tissues is:

- a) Elastase
- b) Hyaluronidase
- c) Hydroxy Collagenase
- d) Lysyl oxidase
- e) Prolyl oxidase

Q 56) The major storage form of Vitamin D in the body is:

- a) 7-dehydrocholesterol
- b) Ergocalciferol
- c) Cholecalciferol
- d) 25 hydroxy cholecalciferol
- e) 1,25 di hydroxy cholecalciferol

Q 57) Hormone that inhibits the resorption of bones by osteoclasts, reducing mobilization of Calcium and inorganic PO₄ from bones into the blood is:

- a) Calcitonin
- b) Insulin
- c) Parathyroid
- d) Testosterone
- e) Thyroxine

Q 58) The most abundant amino acids in collagen and plays a critical role in its unique triple-helix-structure is:

- a) Arginine
 - b) Glycine
 - c) Histidine
 - d) Lysine
 - e) Proline
- Glycine - Lysine - Proline*

PATHOLOGY

Q 59) Which one of the following is least likely feature of osteoporosis?

- a. Bone mass is 1-2.5 SD below Mean peak bone mass
- b. Common after menopause
- c. Common due to senile changes
- d. Presence of non-traumatic fracture
- e. Severe osteopenia that significantly increase the risk of fracture

Q 60) Osteomyelitis denotes inflammation of bone and marrow, virtually always secondary to infection. Which organism is most likely to be isolated in patient of sickle cell anemia suffering from osteomyelitis?

- a. Escherichia coli
- b. Group B streptococci
- c. Haemophilus influenzae
- d. Mixed bacterial infections
- e. Salmonella

Q 61) Which of the following strategies is best to provide prevention for postmenopausal osteoporosis?

- a. Increasing bone mass with exercise during young adulthood
- b. Initiation of estrogen replacement therapy after a fracture
- c. Limited alcohol use, and avoidance of the use of tobacco
- d. Supplementation of the diet with calcium and vitamin after menopause
- e. Use corticosteroid therapy for inflammatory conditions

Q 62) A 28-year-old man flips over an all-terrain vehicle, and he lands on his leg. On physical examination there is intense pain on palpation over the right shin, but there is no shortening of the limb. The overlying skin is intact. A radiograph shows right tibial and fibular midshaft fracture into multiple bone fragments. Which of the following terms best describes these fractures?

- a. Comminuted
- b. Compound
- c. Displaced
- d. Incomplete
- e. Pathologic

Q 63) A 55-year-old male with history of pain and loss of sensation in lower extremity, repeated trauma that deforms joints. Biopsy from gummatous lesion shows fibrinoid necrosis characterized by edematous granulation tissue containing numerous plasma cells and necrotic bone. What is the most probable diagnosis?

- a. E. coli causing osteomyelitis
- b. Increased tendency of fracture due to age
- c. Infection by salmonella
- d. Infection by treponema pallidum
- e. Osteomalacia due to Vitamin D deficiency

Q 64) Among Non-Steroidal Anti-inflammatory drugs (NSAIDs) aspirin is unique because it:

- a. Irreversibly inhibits its target enzyme
- b. It selectively inhibits cyclooxygenase enzyme
- c. Increases the risk of colon cancer
- d. Decreases fever
- e. Prevents episodes of gouty arthritis with long term use

Q 65) Which of the following drug is analgesic and antipyretic but weak anti-inflammatory:

- a. Probenecid
- b. Celecoxib
- c. Colchicine
- d. Acetaminophen
- e. Indomethacin

Q 66) The chronic use of aspirin as analgesic may result in which of the following adverse effect:

- a. Heart failure
- b. Gastric ulcer
- c. Gout
- d. Vertigo
- e. Headache

Q 67) Which of the following drug inhibits both cyclo-oxygenase-1 and 2?

- a. Allopurinol
- b. Aspirin
- c. Acetaminophen
- d. Celecoxib
- e. Misoprostol

Q 68) Which of the following is primary cause of death from acetaminophen overdoses?

- a. Acute nephropathy
- b. A-V conduction disturbances
- c. Liver failure
- d. Status asthmaticus
- e. Status epilepticus

Q 69) Aspirin's effects on blood clotting involve which of the following mechanism

- a. Activating anti-thrombin III, inhibiting thrombin
- b. Preventing platelet aggregation by inhibiting thromboxane A2 synthesis
- c. Blocking platelet receptor for ADP
- d. Inhibiting hepatic Vit-K dependent clotting factor synthesis
- e. Stimulating fibrinogen synthesis

Q 70) Which of the following drug is consider directly acting skeletal muscle relaxant?

- a. Diazepam
- b. Chlorzoxazone
- c. Tizanidine
- d. Dantrolene
- e. Succinylcholine

BEHAVIORAL SCIENCES

Q 71) Erickson's each stage of psychosocial development is characterized by a conflict (crisis) that must be resolved by the individual. If the stage is not managed well, then a negative disposition will arise. It may be a Malignancy or Maladaptation of behaviour. Is not quite as bad and involves too much of the positive and too little of the negative such as a person who trusts too much. This negative disposition is called

- a. ego dystonic
- b. conflict
- c. crisis
- d. temperament
- e. virtue

Q 72) ADHD is a neurodevelopmental with a lifespan perspective. It is indicated that females are better able to mask their symptoms of ADHD and remain unidentified and untreated throughout childhood due to more subtle and internalized presentations compared to males. girls with ADHD may show following symptoms except

- a. Feeling shy
- b. Forgetfulness
- c. Distractibility
- d. Daydreaming
- e. Disruptiveness

COMMUNITY MEDICINE

Q 73) One DALY represents the loss of the equivalent of one year of full health. It is mathematically represented by which one of the following equations?

- a. $DALY = DW + YLL$ (Disability Weight + Years of Life Lost)
- b. $DALY = DW + YLD$ (Disability Weight + Years lived with Disability)
- c. $DALY = L + YLL$ (Life expectancy at age of death + Years of Life Lost)
- d. $DALY = YLL + YLD$ (Years of Life Lost + Years lived with Disability)
- e. $DALY = YLD + L$ (Years lived with Disability + Life expectancy at age of death)

Q 74) The physiological ability of women to bear children is called

- a. General Fertility Rate
- b. Fecundity
- c. Fertility
- d. Reproductive life span
- e. Total Fertility Rate

Q 75) The systems that keep a continuous record of vital events such as births and deaths in a defined territory is called

- a. Demographic sample survey
- b. Population Census
- c. Service statistics
- d. Surveillance
- e. Vital Registration

RADIOLOGY

Q 76) In most of the cases, how many Xray views are enough to confidently exclude scaphoid fracture?

- a. Single view is enough.
- b. Two standard Xray views
- c. Three Xray views
- d. Four Xray views of the Scaphoid series.
- e. Five Xray views of the scaphoid series.

Q 77) A 30 yr male patient came to emergency department with history of fall and complain of right knee pain. His Xray right knee joint show no gross pathology. ER physician suspect ligamentous injury. Which one is the next investigation of choice?

- a. CT right knee.
- b. MR right knee.
- c. Xray of right knee with additional views.
- d. Contrast enhanced CT scan of right knee.
- e. None of the above

OSPE → Figure 1

FROM Q78– Q80 CONSIDER FOLLOWING IMAGE

SCENARIO: A 23-year-old soldier presents with shrapnel wound (fragments of a bomb, shell, or other. Object thrown out by an explosion) in the lateral wall of his chest. Few months later, his Physical therapist observed his scapula moves away from the chest.

- Q 78) Which nerve is likely to be damaged in this case?**
- a) Median nerve
 - b) Ulnar nerve
 - c) Radial nerve
 - d) Lateral pectoral nerve
 - e) Long thoracic nerve
- Q 79) What is the root value of the nerve damaged in this scenario?**
- a) C8,T1,T2
 - b) C5,C6 and C7
 - c) C4,C5
 - d) C7,C8
 - e) C8,T1
- Q 80) Which one of the following muscles is most likely to be affected?**
- a) Deltoid muscle
 - b) Biceps brachii muscle
 - c) Serratus anterior muscle
 - d) Coracobrachialis muscle
 - e) Teres major muscle

OSPE → Figure 2

FROM Q81 – Q85 CONSIDER FOLLOWING IMAGE

- Q 81) Identify the joint between Bone 'A' and Bone 'B'.**
- a. Ankle joint
 - b. Calcaneocuboid joint
 - c. Subtalar joint
 - d. Talocalcaneonavicular joint
 - e. Inferior tibiofibular joint
- Q 82) Identify the type of joint.**
- a. Fibrous
 - b. Cartilaginous
 - c. Plane synovial
 - d. Hinge
 - e. Ball and socket
- Q 83) Which major movements are possible at the marked joint?**
- a. Inversion and eversion
 - b. Dorsiflexion and planter flexion
 - c. Adduction and abduction
 - d. Medial and lateral rotation
 - e. No movement possible
- Q 84) Which bones form the marked joint?**
- a. Talus and calcaneum
 - b. Talus and cuboid
 - c. Tibia and fibula
 - d. Talus and navicular
 - e. Cuboid and cuneiform
- Q 85) Which of the following muscles does not act on the joint?**
- a. Peroneus longus
 - b. Peroneus tertius
 - c. Soleus
 - d. Tibialis anterior
 - e. Tibialis posterior

OSPE → Figure 3

FROM Q86 – Q90 CONSIDER FOLLOWING IMAGE

SCENARIO

The above diagram shows muscles on the anterior aspect of thigh.

- Q 86) Which of the following muscle is supplied by two nerves?
- A
 - B
 - C
 - D**
 - E
- Q 87) Which of the marked structure gives attachment to the inguinal ligament?
- A
 - B
 - C**
 - D
 - F
- Q 88) In the diagram shown identify the extensor of knee joint and flexor of hip joint.
- B
 - C
 - D
 - E
 - F**
- Q 89) Which of the following marked structure is a component of Pes Anserinus, and innervated by femoral nerve?
- A
 - B**
 - C
 - E
 - F
- Q 90) Identify the structure marked by E?
- Quadriceps tendon
 - Tensor Fascia lata
 - Ligamentum patellae**
 - Medial collateral ligament
 - Lateral collateral ligament

OSPE → Figure 4

FROM Q91 – Q95 CONSIDER FOLLOWING IMAGE

- Q 91) Which myogram shows summation of contraction?
- A
 - B
 - C**
 - D
 - E
- Q 92) What does A indicates?
- Action potential in muscle
 - Contraction of muscle
 - Depolarization
 - Simple muscle twitch**
 - Sub threshold contraction
- Q 93) Which of the following is a sustained muscle contraction evoked when the motor nerve that innervates a skeletal muscle emits action potentials at a very high rate?
- A
 - B
 - C
 - D**
 - E
- Q 94) What is the reason for phase E shown above?
- Ca⁺⁺ goes back into sarcoplasmic reticulum**
 - Decreased ATP formation
 - Increased intracellular Na⁺
 - Loss of potassium
 - Swelling of the muscle
- Q 95) Which of the following shows incomplete tetanus?
- A
 - B**
 - C
 - D
 - E

CBL

FOR QUESTIONS 96 - 100 CONSIDER THE FOLLOWING SCENARIO

footballer came to ER with the complaint of sudden onset of pain and swelling of right knee after injury during the match and unable to walk properly. On examination there is instability, hyperextension of knee joint with tibia displaced anteriorly on femur and with loss of sensation over the medial side of leg and foot.

- Q 96) The above mentioned findings are due to injury of which of the following ligaments?**
- ☒ a. Anterior cruciate
 - ☐ b. Posterior cruciate
 - ☐ c. Transverse
 - ☐ d. Tibial collateral
 - ☐ e. Fibular collateral
- Q 97) In this patient which of the following ligaments is preventing the displacement of tibia on femur posteriorly?**
- ☐ a. Anterior cruciate
 - ☒ b. Posterior cruciate
 - ☐ c. Transverse
 - ☐ d. Tibial collateral
 - ☐ e. Fibular collateral
- Q 98) The mentioned sensory loss is due to involvement of which of the following nerve?**
- ☐ a. Sural
 - ☒ b. Saphenous
 - ☐ c. Deep peroneal
 - ☐ d. Superficial peroneal
 - ☐ e. Lateral plantar
- Q 99) The mentioned movement of the knee joint in the case could be due to weakness of which of the following muscles?**
- ☒ a. Biceps femoris
 - ☐ b. Popliteus
 - ☐ c. Quadriceps
 - ☐ d. Semimembranous
 - ☐ e. Semitendinous
- Q 100) Based on the patient's presentation with instability and hyperextension of the knee joint during a football match, which type of muscle fibers are likely to be more prominently involved in the injury?**
- ☐ a. Type I muscle fibers
 - ☒ b. Type IIa muscle fibers
 - ☐ c. Type IIb muscle fibers
 - ☐ d. Type IIx muscle fibers
 - ☐ e. Type III muscle fibers

***** The End *****