



TEST BANK



Subject:

MSS FINAL
EXAM-019

Collected
by



MAJDOLEEN HAMED

THEORETICAL PART

1) A 13-year-old boy was brought by his parents with right forearm pain and swelling. Imaging showed an infiltrative diaphyseal tumor with two Codman triangles one proximal and one distal. The fine needle aspiration smears revealed numerous small tumor cells with high nuclear cytoplasmic ratio. The molecular signature abnormality of this tumor is:

- a. t (11;22)(q24;q12)
- b. MDM2 translocation
- c. t (x;18)(p12;q15)
- d. Point mutation of osteoblast P53 tumor suppressor gene
- e. Gene mutation in fibroblast growth factor receptor 3

2) Which of the following is correct? (OM=Osteomyelitis)

- a. The presence of a prosthetic joint will less likely aid hematogenous spreading organisms to cause OM
- b. MRSA and MSSA are shown to be equally aggressive (virulent)
- c. Countries with better healthcare and access to orthopedics, have less OM than countries with limited healthcare
- d. Direct bone contamination yields hematogenous seeding of the bone causing OM
- e. A patient with vertebral OM from Africa is likely to reveal mycobacterial OM

3) Sternocleidomastoid, choose the WRONG statement:

- a. It is crossed superficially by the external jugular vein
- b. Contraction of one muscle rotates the head to the opposite side
- c. Has two heads of origin
- d. It is paralyzed when spinal accessory is severed in the posterior triangle
- e. It is enclosed by the investing fascia

4) After an accident, a patient suffered from a deep stab wound near the superior angle and medial border of the scapula that resulted in cutting the dorsal scapular and accessory nerves. Which of the following will be affected?

- a. Levator scapulae and erector spinae
- b. Rhomboid major and trapezius
- c. Trapezius and serratus posterior superior

- d. Sternocleidomastoid and splenius cervicis
- e. Rhomboid minor and latissimus dorsi

5) If the cornea is in an abducted position and the person then moves the cornea downwards, the muscle that would be the most effective for depressing the eyeball is the:

- a. Inferior rectus
- b. Superior rectus
- c. Superior oblique
- d. Inferior oblique
- e. Levator palpebrae superioris

6) A patient suffers damage to the orbit in a road traffic accident resulting in damage to the third cranial nerve. All the following signs will probably be present in the involved eye EXCEPT which?

- a. Rounding of the crystalline lens is affected due to accommodation loss
- b. The eyelid is manually elevated due to ptosis
- c. The pupil is dilated
- d. The eyeball is deviated downward and out
- e. Decreased lacrimation

7) Which of the following muscles receives its motor supply by 2 cranial nerves?

- a. Trapezius
- b. Thyrohyoid
- c. Omohyoid
- d. Digastric
- e. Buccinator

8) A patient brought into the emergency room after falling from a height, he was diagnosed with fracture of the body of T4. The fractured body articulates with:

- a. Head of the 3rd rib
- b. Tubercle of the 5th rib
- c. Neck of the 4th rib
- d. Head of the 5th rib
- e. Tubercle of the 4th rib

9) In contrast to lipomas; liposarcomas are?

- a. Larger masses, commonly in the thigh and retroperitoneum
- b. Treated mainly by chemotherapy alone
- c. The most common soft tissue tumors
- d. Usually smaller in size
- e. Devoid of any specific genetic or molecular abnormalities

10) Rhomboid-geometric crystals were seen on joint aspirate from a 60-year old male patient who came with right ankle joint pain and swelling. The crystals exhibit weakly positive birefringence under polarizing microscope. What is the diagnosis?

- a. Pseudo gout
- b. Sero-negative arthropathy of ankle joint
- c. Acute gouty arthritis
- d. Acute exacerbation of osteoarthritis
- e. Chronic gouty arthritis

11) Which of the following is the gold standard in diagnosis Pyomyositi?

- a. MRI
- b. X Ray
- c. Blood Culture
- d. CT
- e. PCR

12) During labor, local anaesthetic to block spinal nerves (epidural anaesthesia) is usually injected in the:

- a. Intervertebral foramen
- b. Ventral sacral foramina
- c. Sacral hiatus
- d. Vertebral canal
- e. Dorsal sacral foramina

13) The carotid sheath and its contents may be safely retracted as a unit during surgical procedures of the neck. The contents of the carotid sheath include all of the following structures EXCEPT the:

- a. External carotid artery

- b. Internal jugular vein
- c. Carotid plexus
- d. Deep cervical lymph nodes
- e. Tenth cranial nerve

14) All the following muscles are supplied by ansa cervicalis EXCEPT:

- a. Sternohyoid
- b. Sternothyroid
- c. Superior belly of omohyoid
- d. Inferior belly of omohyoid
- e. Thyrohyoid

15) A lesion causing compression of the facial nerve at the internal acoustic meatus will cause ipsilateral:

- a. Paralysis of the facial muscles
- b. Paralysis of the facial muscles, decreased salivation, loss of taste and lacrimation
- c. Paralysis of the facial muscles, increased salivation, loss of taste and lacrimation
- d. Paralysis of the facial muscles and loss of taste
- e. Paralysis of the facial muscles, loss of taste and lacrimation

16) Diaphragmatic hiatuses for the passage of major blood vessels between the thorax and abdomen are present at the level of:

- a. T6 & T8
- b. T8 & T12
- c. T10 & T12
- d. T8 & T10
- e. T4 & T6

17) Contents of the neck triangles, choose the WRONG match:

- a. Internal jugular vein: carotid triangle
- b. Ansa cervicalis: muscular triangle
- c. Spinal accessory: posterior triangle
- d. Subclavian vessels: supraclavicular triangle
- e. Facial vessels: submandibular triangle

18)The most laterally projected rib is the:

- a. 10th rib
- b. 9th rib
- c. 7th rib
- d. 8th rib
- e. 4th rib

19)Allopurinol decreases the plasma concentration of:

- a. Hypoxanthine
- b. Xanthine
- c. Uric acid
- d. All of the mentioned
- e. Purine bases

20)One is FALSE about Extradural hematoma:

- a. The cause is usually a trauma to the pterion of the skull
- b. Prognosis is excellent if operated quickly
- c. The source of bleeding is venous
- d. Evacuation should be done as soon as possible
- e. It is also called Epidural hematoma

21)Following a car accident, a patient suffered from fracture in the transverse processes of the upper cervical vertebra, which of the following muscles might be affected?

- a. Splenius capitis
- b. Serratus posterior superior
- c. Trapezius
- d. Rhomboid major
- e. Levator scapulae

22)A 36-year-old male presents with acute onset of right buttock and leg pain following lifting a heavy object. On physical exam he has weakness to knee extension, numbness over the medial malleolus, and a decreased patellar reflex. Which of the following would most likely explain this clinical presentation?

- a. L1/L2 far lateral (foraminal) disc herniation

- b. Lumbar arachnoiditis
- c. L4/L5 paracentral disc herniation
- d. L3/L4 paracentral disc herniation
- e. L5/S1 far lateral (foraminal) disc herniation

23)Parasympathetic innervation to the head, choose the CORRECT statement:

- a. Ciliary ganglion receives its preganglionic parasympathetic fibers from nasociliary nerve
- b. Preganglionic parasympathetic fibers in facial nerve end in two different ganglia
- c. Submandibular ganglion receives preganglionic parasympathetic fibers from glossopharyngeal nerve
- d. Preganglionic parasympathetic fibers of lesser petrosal nerve synapse in pterygopalatine ganglion
- e. Ciliary ganglion sends postganglionic parasympathetic fibers to the radial muscle of the iris

24)Failure of fusion between the maxillary process and the intermaxillary segment at one side results in which one of the followings?

- a. Median cleft lip
- b. Unilateral macrostomia
- c. Unilateral oblique facial cleft
- d. Bilateral primary cleft palate combined with bilateral cleft lip
- e. Unilateral primary cleft palate combined with unilateral cleft lip

25)A patient has a fracture in the middle cranial fossa. You suspect damage to the nerve passing through foramen ovale. You would test the motor function of this nerve by:

- a. Touching the face around the jawline with a cotton swab and ask the patient whether he felt it
- b. Asking the patient to rotate his head to one side against resistance
- c. Asking the patient to clench his teeth together and feel the bulk of the muscles supplied by mandibular nerve
- d. Asking the patient to close his eyes tightly and open them by applying gentle pressure

26) Severe knee joint space narrowing, multiple osteophytes on imaging, subchondral bone cyst formation and subchondral bone sclerosis are characteristic features of advanced cases of which one of the following?

- a. Ankylosing spondylitis
- b. Lyme disease
- c. Osteoporosis
- d. Degenerative joint disease (Osteoarthritis)
- e. Rheumatoid arthritis

27) A 65-year-old woman presents with multiple hand joint pain and swelling. She complains of morning joint stiffness that improves slowly after initial movements. Bilateral ulnar deviation was noted on examination. Which one of the following tests will confirm your top differential diagnosis?

- a. Arthroscopic examination
- b. Rheumatoid factor
- c. High resolution X-ray of the hands and the feet
- d. Joint fine needle aspiration fluid examination
- e. No need for further testing; the patient has ankylosing spondylitis

28) Which of the following is correct? (OM=Osteomyelitis)

- a. There is no way for us to detect antimicrobial resistance using PCR
- b. X-ray features can be seen within a few days of OM
- c. Normal White cell count Excludes the diagnosis of OM
- d. High ESR or CRP confirms the diagnosis of OM in presence of clinical suspicion
- e. Blood cultures can be negative in the setting of OM

29) Removing a bone flap from the skull to operate on the brain is called:

- a. Craniotomy
- b. Craniectomy
- c. Decompression
- d. Ventriculostomy
- e. Skulllectomy

30) Choose the CORRECT statement regarding optic disc?

- a. It is more nasal compared to macula lutea

- b. It has the highest concentration of rods
- c. It is relatively avascular
- d. It has a diffuse margin
- e. It contains fovea centralis

31) Which of the following primary antimicrobial regimen and disease combination is correct?

- a. Herpes simplex genital: foscarnet
- b. Cellulitis: doxycycline
- c. Gas gangrene: cephalexin
- d. MRSA skin infection: Oxacillin
- e. Group A Fasciitis: Clindamycin

32) A 76-year-old male patient came with severe acute hip pain. Pelvic X-ray revealed a pathologic fracture at the neck of femur with multiple osteoblastic lesions of all pelvic bones and vertebrae. What would be the most cost-effective test to confirm the diagnosis in this patient?

- a. Open reduction and tissue biopsy
- b. Grade V degenerative joint disease changes
- c. Rheumatoid arthritis
- d. CT scan of abdomen and pelvis
- e. Serum prostate specific antibody (PSA) level

33) All the followings are considered branches of the second part of maxillary artery EXCEPT:

- a. Deep temporal arteries
- b. Masseteric artery
- c. Buccal artery
- d. Pterygoid branches
- e. Middle meningeal artery

34) Muscles of facial expression are derivatives of which of the following pharyngeal arches?

- a. 2nd arch
- b. 3rd arch
- c. 4th arch
- d. 1st arch

e. 6th arch

35) Which of the followings is a derivative of the first pharyngeal cleft?

- a. Inner mucous layer of tympanic membrane
- b. Mucous layer of pharyngotympanic tube
- c. Sphenomandibular ligament
- d. Outer cutaneous layer of tympanic membrane
- e. Palatine tonsil

36) The intercostal space: Choose the INCORRECT statement:

- a. The collateral branch of the intercostal nerve is purely sensory
- b. The internal intercostal muscles are replaced posteriorly by a membrane
- c. The anterior intercostal veins in the upper 6 spaces join the internal thoracic vein
- d. The posterior intercostal arteries in the lower thorax originate from the aorta
- e. The external intercostal muscles are replaced anteriorly by a membrane

37) The following statements concerning aspirin are true, EXCEPT:

- a. In contrast to most other NSAIDs, aspirin binds irreversibly to its target
- b. Aspirin is an analgesic, antipyretic and anti-inflammatory agent C. Aspirin interferes with the production of chemical mediators of inflammation
- d. Aspirin inhibits phospholipase A2
- e. Aspirin inhibits thromboxane A2 formation

38) Examination of a patient indicates that he has a medially directed strabismus (squint). This sign strongly suggests a diagnosis of:

- a. None of the mentioned
- b. Third nerve palsy
- c. Fourth nerve palsy
- d. Sixth nerve palsy
- e. Trigeminal neuralgia

39) Strong nonsteroidal anti-inflammatory drugs are more commonly used than colchicine in acute gout because:

- a. They are more effective

- b. They are better tolerated
- C. All of the mentioned
- d. They act more rapidly
- e. They have additional uricosuric action

40) Fibromatoses diseases are best characterized by:

- a. Easy surgical excision with low recurrence rate
- b. Fibroblast growth factor receptor 3 mutations
- c. Locally destructive and infiltrative lesions
- d. Highly pleomorphic cells under the microscope
- e. Almost all are superficial subcutaneous lesions

41) A 45-year-old man came to your clinic with severe big toe pain and swelling. No history of trauma was mentioned. Aspiration of the big toe interphalangeal joint revealed needle shaped crystals with negative birefringence. The most likely diagnosis is?

- a. Osteoarthritis
- b. Acute Gouty arthritis
- c. Sero-negative Reiter disease
- d. Rheumatoid arthritis
- e. Pseudo-gout arthritis

42) Which of the following drugs binds to tumor necrosis factor- α (TNF- α) and blocks the interaction with cell-surface TNF receptor?

- a. ABATACEPT
- b. Anakinra
- c. Methotrexate
- d. Prednisone
- e. Adalimumab

43) Which one of the following statements best characterizes degenerative joint disease of bone?

- a. Insidious and increase with age
- b. Avascular necrosis is a common complication of severe cases
- c. Pannus formation is characteristic
- d. Primary disease of the synovium
- e. Secondary etiology is more common than idiopathic/primary

44) Which of the following can be used to measure the extent of infection in a diabetic foot setting?

- a. Clinical history
- b. Previous history of infection
- c. Microbiology specimen
- d. Imaging (MRI)
- e. Dorsal pedis pulse

45) Which of the following is correct?

- a. Blood sugar control after developing diabetes will have little effect on preventing diabetic foot
- b. Diabetic foot is a single pathology disorder, that can be either cellulitis, osteomyelitis or fasciitis
- c. Blood sugar control after developing diabetes will have no effect on preventing diabetic foot
- d. Gram negative enteric bacteria become an issue in diabetic foot in chronic presentation
- e. Naïve diabetic foot ulcers require broad spectrum antimicrobial therapy

46) For a patient of peptic ulcer, the safest nonopioid analgesic is:

- a. Ketorolac
- b. Ibuprofen
- c. Acetaminophen
- d. Aspirin
- e. Diclofenac sodium

47) Which of the following retinal layers contains the nuclei of the bipolar cells, amacrine cells, horizontal cells, and Muller cells?

- a. Rod and cone layer
- b. Outer limiting layer
- c. Outer nuclear layer
- d. Inner nuclear layer
- e. Outer plexiform layer

48) All the following structures enter the orbit within the common tendinous ring via the superior orbital fissure EXCEPT:

- a. Inferior division of oculomotor nerve

- b. Ophthalmic artery
- C. Abducens nerve
- d. Superior division of oculomotor nerve
- e. Nasociliary nerve

49) Which of the following is correct? (OM=Osteomyelitis)

- a. Pseudomonas is becoming increasingly more sensitive to antimicrobials in OM setting
- b. Viruses almost never infect bone
- c. S. pyogenes is most associated with implants or foreign material
- d. K. pneumoniae may be resistant to antimicrobials before or after therapy, but not during
- e. The most common and most aggressive pathogen is S. aureus

50) Which of the followings is NOT considered a content of infratemporal fossa?

- a. Otic ganglion
- b. Chorda tympani
- c. Greater petrosal nerve
- d. Pterygoid venous plexus
- e. Pterygoid muscles

ANSWERS:

Q1	A	Q21	E	Q41	B
Q2	E	Q22	D	Q42	E
Q3	D	Q23	B	Q43	A
Q4	B	Q24	E	Q44	D
Q5	A	Q25	C	Q45	D
Q6	E	Q26	D	Q46	C
Q7	D	Q27	B	Q47	D
Q8	D	Q28	E	Q48	B
Q9	A	Q29	A	Q49	E
Q10	A	Q30	A	Q50	C
Q11	A	Q31	E		
Q12	C	Q32	E		
Q13	A	Q33	E		
Q14	E	Q34	A		
Q15	B	Q35	D		
Q16	B	Q36	A		
Q17	B	Q37	D		
Q18	D	Q38	D		
Q19	C	Q39	B		
Q20	C	Q40	C		

PRACTICAL PART

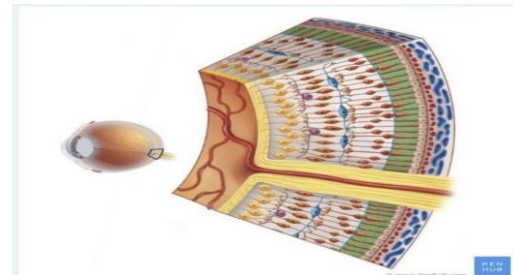
1) A 54-year-old diabetic male, ex-smoker, with arm pain that has been dull and constant for the past 3 months, of the patient reports some mild redness. He has tried elevating it, using cold packs and NSAIDs with little effect. The patient denies any trauma and works as an office manager and works as a woodworker in his spare time. There is no recent travel history, no weight loss. Blood work reveals elevated CRP. The image below was obtained: What is the likely diagnosis?

- a. Cellulitis
- b. Chronic fracture
- c. Osteosarcoma
- d. Osteochondroma
- e. Myositis
- f. Osteomyelitis
- g. Metastasis from Lung cancer



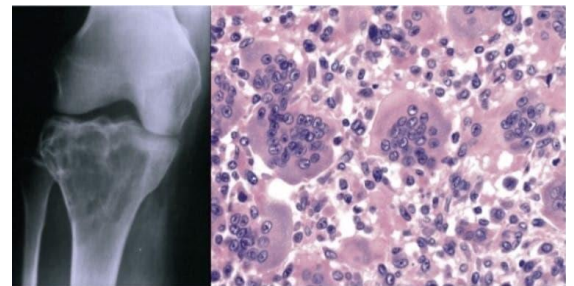
2) Identify the **green** highlighted layer:

- a. Outer nuclear layer
- b. Inner nuclear
- c. Outer plexiform
- d. Photoreceptor layer
- e. Retinal pigment epithelium



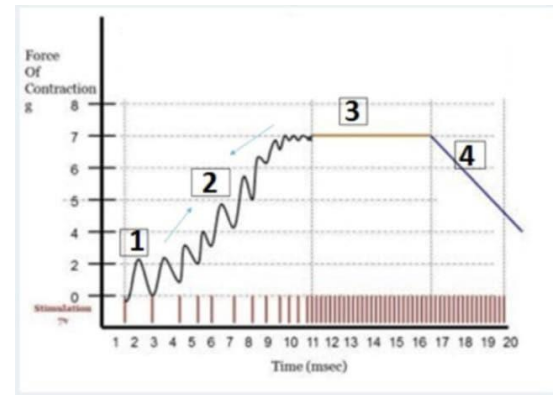
3) You are evaluating a 45-year old woman with upper leg pain. The X ray and the open biopsy material are shown below. This disease is characterized by?

- a. Association of Paget disease of bone
- b. Tumor cells lack RNANKL protein
- c. Cure achieved by disarticulation from the knee joint



- d. Locally aggressive neoplasm of adults
- e. High frequency of metastasis

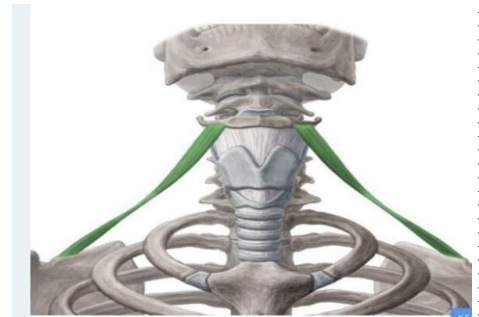
4) The figure below, represents recordings of twitches by stimuli that caused contraction of all muscle fibers in the preparation. Which of the following statements is TRUE with regard to the recording?



- a. 4 represents complete tetanization
- b. 3 represents incomplete tetanization
- c. 2 represents motor unit summation
- d. 4 happens due to decreased transmission at neuromuscular junction
- e. In 3 lower Ca^{++} concentration is found in the sarcoplasm than in 1

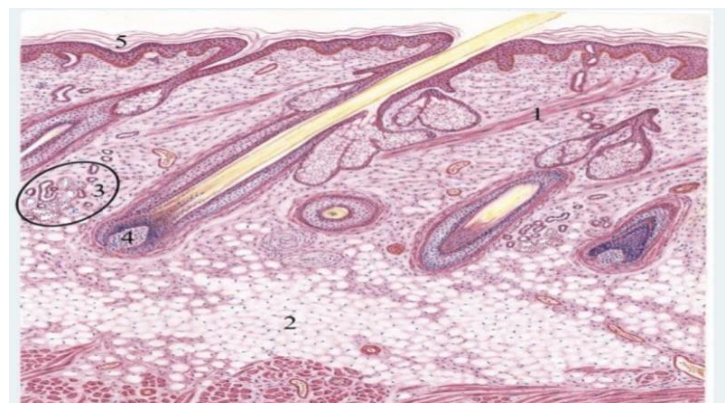
5) Choose the WRONG statement regarding this muscle:

- a. It is supplied by ansa cervicalis
- b. Its superior belly separates muscular and carotid triangles
- c. None of the mentioned
- d. Its inferior belly is located in the posterior triangle of the neck
- e. It is one of infrahyoid muscles and has two bellies



6) Choose the WRONG match:

- a. Keratin: 5
- b. Dermal papilla: 4
- c. Arrector pili: 1
- d. Sebaceous gland: 3
- e. Hypodermis: 2



7) If the temperature of the solution bathing the frog's gastrocnemius muscle was changed from room temperature (25°C) to 37 °C. Which of the followings is expected to happen to the recorded simple muscle twitch?

- a. The latent period becomes longer
- b. The duration of contraction period will shorten
- c. The duration of the muscle twitch will not be affected
- d. The amplitude of the contraction will decrease
- e. The latent period will not change

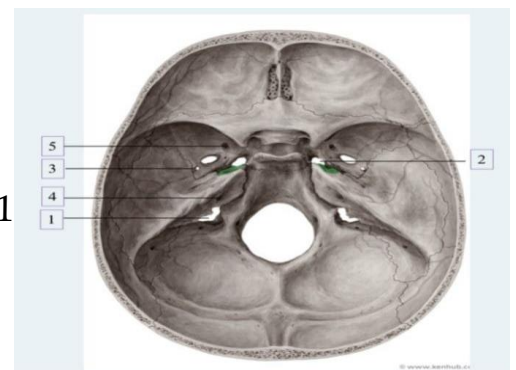
8) The images below belong to a 11-year-old boy who came with precocious puberty and multiple endocrine glands abnormalities. What is the most likely diagnosis?

- a. Leontiasis ossea / platybasia
- b. McCune-Albright syndrome
- c. Multiple hereditary chondromatosis
- d. Familial Paget disease of bone
- e. Mazabraud syndrome



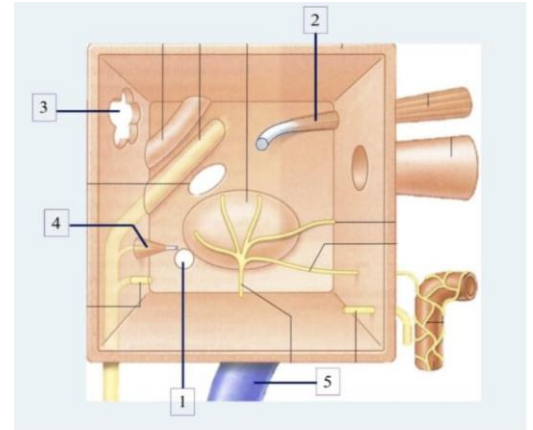
9) Choose the WRONG match:

- a. Filled by cartilage and fibrous tissue: 2
- b. Vagus, accessory and glossopharyngeal nerves: 1
- c. Middle meningeal artery: 3
- d. Mandibular nerve: 5
- e. Facial and vestibulocochlear nerves: 4



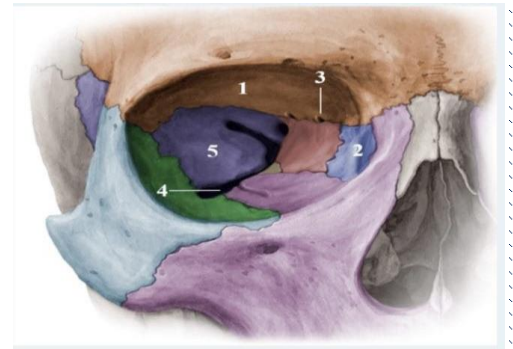
10) Choose the WRONG match:

- a. A muscle supplied by mandibular nerve: 2
- b. Round window in the medial wall: 1
- c. External jugular vein: 5
- d. Aditus to mastoid: 3
- e. A muscle supplied by facial nerve



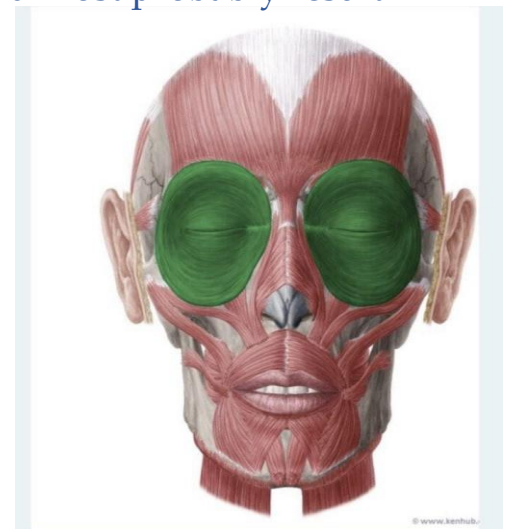
11) Choose the WRONG match:

- a. 4 is located between the floor and the lateral wall
- b. 1 is the orbital plate of frontal bone
- c. 2 is the lacrimal bone
- d. 5 is the orbital plate of zygomatic bone
- e. 3 transmits anterior ethmoidal nerve and vessels



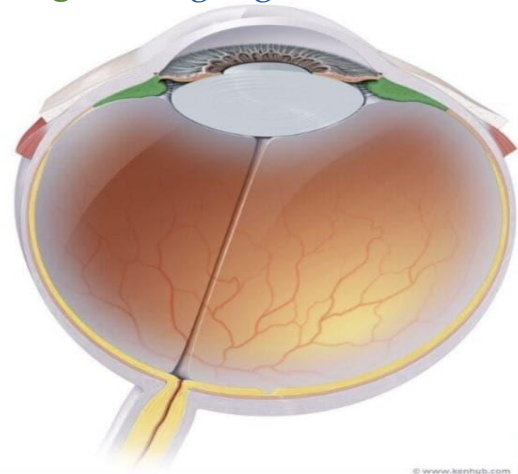
12) Paralysis of the **green** highlighted muscle would most probably result in:

- a. Inability to rotate the eyeballs laterally
- b. Double vision
- c. Inability to elevate the upper eyelids
- d. Inability to close the eyes
- e. Inability to elevate the eyebrows



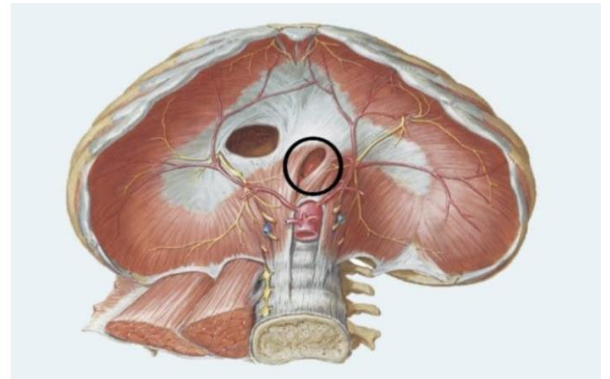
13) Cell bodies of motor neurons supplying the **green** highlighted structure lie in which ganglion?

- a. Trigeminal
- b. Ciliary
- c. Pterygopalatine
- d. Geniculate
- e. Otic



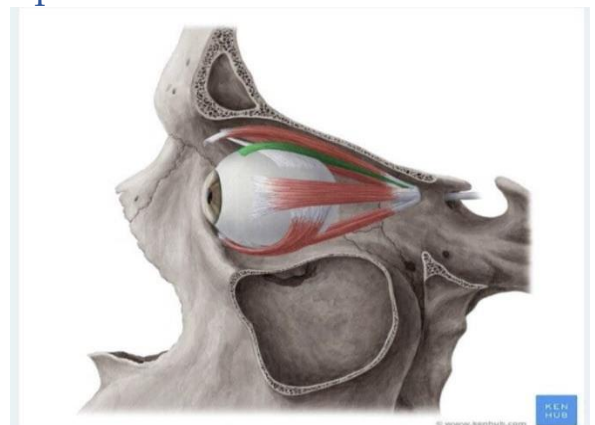
14) The best description of the encircled opening is:

- a. Lies one inch to the right of the mid line at the level of the lower border of T8
- b. Transmits the azygos vein and thoracic duct
- c. Transmits the esophagus, anterior and posterior gastric nerves
- d. Transmits the esophagus and right phrenic nerve
- e. It is located in the non-contractile part of the diaphragm



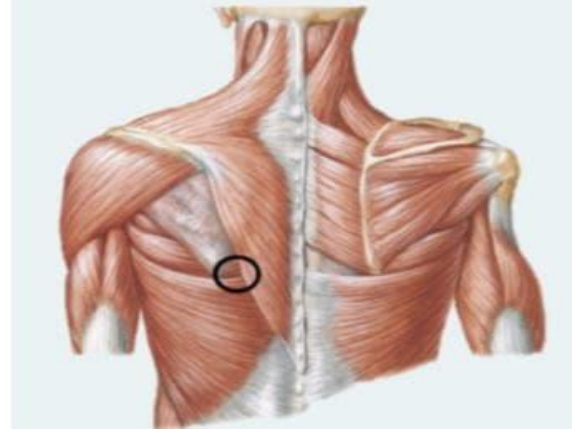
15) If all extraocular muscles were paralyzed except for the **green** highlighted muscle, the cornea would be in this position:

- a. Abducted and elevated
- b. Adducted and depressed
- c. None of the mentioned
- d. Abducted and depressed
- e. Adducted and elevated



16) Which of the following is NOT related to the encircled area?

- a. Latissimus dorsi
- b. Scapula
- c. Trapezius
- d. Rhomboid major
- e. Rhomboid minor



ANSWERS:

Q1	F	Q11	D
Q2	D	Q12	D
Q3	D	Q13	B
Q4	D	Q14	C
Q5	C	Q15	E
Q6	D	Q16	E
Q7	B		
Q8	B		
Q9	D		
Q10	C		

خذينا أيتها السعادة، دثري قلوبنا بالفرح

خذينا من أعماق الكآبة، واصنعي للحزن مرح

طلّي علينا من شباك الحياة، وارسمي ظلّ الحكاية

أخبرينا عن معانيك وابعدينا عن تضادك

أقنعي حروفك أنها نبض لقلب

أبعدي يا هموم النفس، لا تسكني في أيّ نفسٍ وارفعي الاستسلام راية

رح تشاقوا للدكتورة هبة: