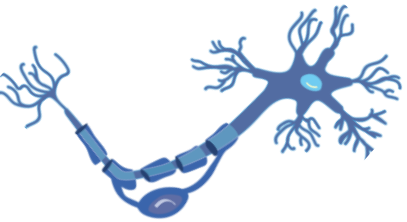

بسم الله الرحمن الرحيم

Past paper MID
Lecture all material
(Dr Fatima)

﴿ إِنِّي تَوَكَّلْتُ عَلَى اللَّهِ رَبِّي وَرَبِّكُمْ ۚ مَا مِن دَابَّةٍ إِلَّا هُوَ آخِذٌ بِنَاصِيَتِهَا ۚ إِنَّ رَبِّي عَلَىٰ صِرَاطٍ مُّسْتَقِيمٍ ﴾

Written by: Zaid Bushnaq
Ahmad Rami
Mahmoud alabsi

Reviewed by: Hashem Al-Jarrah

PHYSIOLOGY

بسم الله الرحمن الرحيم

Past paper

اللهم صل وسلم على محمد

Lec 1-2

Q1: Stimulus intensity is encoded by?

A) Receptive field
B) The number of receptors that are activated
C) The specific sensory modality pathway
D) The location of the stimulus
E) Both B and C

Answer: B

Q2:The most rapidly adapting of tactile receptors?

A) Pacinian corpuscle
B) Meissner's corpuscle
C) Hair cell receptor
D) Ruffini's ending
E) Merkel's disc

Idk where this was mentioned

Answer:A

Q3: Which of the following is not true?

A) Cortical representation is proportional to the size of the organ.
B) Receptors are distributed unevenly across the body.
C) The lips and fingertips have a high density of receptors.
D) A smaller receptive field indicates greater sensory acuity.
E) Lateral inhibition increases the contrast between wanted and unwanted stimuli.

Answer: A

Q4: The somatic sensory modalities that ARE not transmitted through the Posterior column Medial Lemniscus Pathway are:

A) Pain
B) Temperature
C) Itch
D) Tickle
E) All of the above

Answer: E

Q5: Characteristics of the Posterior Column Pathway are:

A) Conduction velocity is faster and high degree of spatial orientation.
B) It transmits a broad spectrum of sensory modalities without spatial mapping.
C) It crosses over at the level of the spinal cord.
D) It relies mainly on unmyelinated C fibers.
E) It is the primary pathway for transmitting pain and temperature.

Answer: A

Q6: Characteristics of Anterolateral Spinothalamic Pathways are:

A) Conduction velocity is extremely fast.
B) It is highly localized with discrete spatial orientation.
C) It transmits fine touch and vibration only.
D) The ability to transmit broad spectrum of sensory modalities and transmits signals that do not require highly discrete localization of signals.
E) It crosses over in the medulla.

Answer: D

Q7: Patient presented with a sudden weakness on his right side, imaging revealed a stroke on the left somatosensory area, what would be the symptoms sensory wise:

A) Loss of all somatic sensation on the right side
B) Loss of all somatic sensation on the left side
C) Complete loss of motor function on the left side
D) Enhanced somatic sensation on the right side
E) No sensory deficits

Answer: A

Q8: True about somatic sensations

A) Any stimulus of the sensory receptors will be transmitted to the central nervous system
B) The smaller the receptor field the greater the discriminative ability
C) Stimuli of the same intensity always result in receptor potential of the same magnitude
D) Labeled line principle determines the intensity of the signal
E) Lateral inhibition refers to that each receptor is specialized in a certain type of stimulus

Answer: B

Q9: A sensory modality that is transmitted through type c nerve fibres:

A) Tickle
B) Pain
C) Pressure
D) Vibration
E) Proprioception

Answer: A

Q10: True about thermal sensation:

A) The smaller the surface area the better the thermal sensation
B) Thermal senses respond markedly to changes in temperature than to steady state
C) Warm sensation is transmitted by type A delta fibres
D) Transduction of temperature is through TRPM18
E) Most areas of the body have more warmth receptors than cold receptors

Answer: B

اللهم صل وسلم على محمد

Lec 3-4

Us Fr

Q11: Which of the following is true about taste sensation ?

A. Taste sensitivity increases with age
B. Flu causes damage in taste receptor cells which leads to decreased taste sensation
C. Bitter taste has the highest threshold
D. Taste buds can be found in locations other than tongue such as the pharynx
E. Injury to the facial nerve causes a complete loss of taste

Answer: D

Q12:Which of the following is true about Olfaction ?

A. Processing of salivation in response to smell occurs in the medial olfactory area of the cortex
B. A lesion in the thalamus usually leads to complete loss of smell
C. Olfactory receptor cells are special cells communicating with first order neurons
D. Any volatile substance can activate olfactory receptors
E. Olfactory receptor cells cannot regenerate

Answer: A

Q13: Patient with recurrent episodes of chest pain that is dull in nature, what is the source of pain:

A. Somatic sensation of parietal pleura
B. Lung parenchyma
C. Opioids
D. Activation of visceral nociceptors in the esophagus

Answer: D

Q14: True about pain receptors:

A) Pain receptors may never adapt at all
B) Pain receptors use A beta fibers
C) Pain receptors are encapsulated receptors
D) Pain receptors are found only in skin
E) Pain receptors transmit only fast pain

Answer:A

Q15:If a sharp pointed object touches the foot of a person, the foot is immediately withdrawn from the object involuntarily. This action involves the receptors:

A) Free nerve endings
B) Ruffini's end organs
C) Hair follicle receptors
D) Meissner's corpuscles
E) Pacinian corpuscles

(pain receptors)

Answer: A

Q16: True about olfaction:

A) Medial pathway concerned with memory
B) Lateral pathway bypass thalamus to paleocortex
C) Glomeruli are collection of mitral cells axons
D) Olfactory receptors synapse with 1st order neurons
E) Olfactory pathway always passes through thalamus first

Answer: B

Q17: True about taste receptors:

A) Taste buds are located only on the tongue
B) Taste receptor cells are permanent and not replaced
C) Salty taste is mediated only by GPCR receptors
D) Smell sensations affect the taste
E) Taste sensation does not involve the cortex

Answer: D

Q18: Having a G-protein coupled receptor is very important in the high sensitivity of olfactory receptor.

A) True
B) False

Answer: A

Q19:Which tract is concerned with regulating the autonomic function in response to smell?

A) Lateral olfactory tract
B) Medial olfactory tract
C) Spinothalamic tract
D) Dorsal column tract
E) Corticobulbar tract

Answer: B

Q20: The reason why bitter taste induces rejection, and it has the lowest threshold among taste sensations, is that the body tries to protect itself from potential poisonous substances.

A) True
B) False

Answer: A

Q21:Where are the taste buds located?

A) Tonsillar pillars
B) Proximal part of the pharynx
C) Palate
D) Anterior part of the tongue
E) All of the above

Answer: E

Vision questions

Q: Which of the following is correct:

A. Primary visual cortex is maximally stimulated in non-contrasting area of image
B. Bipolar cells develop action potential
C. When light is focused on the center of bipolar cells the frequency of action potentials is increased

Answer: C

Q: A 70-year-old patient presents with loss of central vision, with peripheral vision being unaffected, what is the cause?

Answer: macular degeneration

Q: Which statement is true about vision?

A. Lens contributes most to refractory power
B. There is more aqueous humor produced than reabsorbed
C. Contraction of the radial muscle causes pupillary constriction
D. Fovea has the best visual acuity because it has the highest density of rods and cones
E. During relaxation of ciliary muscle suspensory ligaments are tense.

Answer: E

Q: which is true concerning vision

A. Cones are the only receptors found in fovea and are wider than those found elsewhere
B. Opsin is the light-sensitive chemical found in the photoreceptor
C. 11-cis retinal cannot be reformed
D. The vitreous humor is continually formed and reabsorbed
E. Light causes a hyperpolarizing receptor potential

Answer: E

Vestibular system

Answer:

Q: Which tract is concerned with regulating the autonomic function in response to smell?

A. Lateral olfactory tract
B. Medial olfactory tract

Answer: B

Q: a person with a history of occupational noise exposure, suffers from difficulty hearing. Audiogram reveals sensory neural hearing loss at high frequencies. Which of the following could be the cause:

A. inflammation in middle ear ossicles
B. destruction of the base of basilar membrane
C. impairment of tympanic membrane caused by recurrent otitis media
D. destruction of auditory association area
E. attenuation reflex caused this sensory problem

Answer: B

Q: true about the vestibular system:

A. utricle and saccule are concerned with rotational movement
B. otoliths are fluid filled sacs
C. when the head rotates stereocilia bend to the opposite direction
D. hair cells in the copula detect linear motion
E. destruction of the vestibular apparatus causes loss of balance mainly when eyes are open

Answer: C

Scan the QR code or click it for FEEDBACK

Corrections from previous versions:

Versions	Slide # and Place of Error	Before Correction	After Correction
V0 → V1			
V1 → V2			