AZRA NAHEED MEDICAL COLLEGE LAHORE

PHYSIOLOGY DEPARTMENT
2nd YEAR MBBS 2019-20

MID MODULAR TEST; CNS (Sensory System)

SEQs (SHORT EASSY TYPE QUESTIONS)
ATTEMPT ALL QUESTIONS.ALL QUESTIONS CARRY EQUAL MARKS.

MARKS= 30 **DATED: 31-12-2019**
TIME= 40min

Q1.A). child was trying to open the 5 cc disposable syringe, suddenly needle was stuck into his skin, he immediately felt sharp pain followed by dull pain sensation. Trace the complete pathway from skin to cerebral cortex, of these two types of pain sensations. (3)

B). Compare & contrast the properties of Meissner's corpuscles with Nociceptors. (2)

Q2. A) Give functional classification of synapse. (1)

B) Enumerate the properties of synaptic transmission. (2)

C) Define Summation, What are its types. (2)

Q3. A) Classify receptors & give their innervation. (2)

B) Enumerate the properties of receptors. (1.5)

C) Describe mechanism of adaptation & give its importance. (1.5)

Q4.A forty years old male is brought to OPD following road side accident. The attending doctor finds loss of fine touch, pressure, and vibration sensation in the left leg, while the sensation of pain, crude touch, hot & cold are intact in left leg.

a. **Which tract is damaged?** (1.5)
b. **What is spatial orientation of nerve fibers in the affected tract?** (1.5)
c. **Enlist the differences between dorsal column & anterolateral system?** (2)

Q5. A) Draw the sensory homunculus. (2.5)

B) Give features & functions of somatosensory area I. (2.5)

Q6. A) Define analgesia system & mention its components (2)

B) Define referred pain & its mechanism. (1)

C) Write down at least three excitatory & inhibitory neurotransmitters. (2)

equal marks.

DATED: 4-2-2

Higher Brain Function Test
2nd YEAR MBBS 2019- 2020
(Physiology)

Roll No: 074

NAME: M. Adeel

INSTRUCTIONS

1.All objective questions are to be attempted on the paper and delivered to the invigilator within 30 mins
2.Any cutting and overwriting in objective part will not be accepted

Q1.The primary motor area is located in
A. Frontal Lobe
B. Pre-central gyrus of frontal lobe (area 4)
C. Post central gyrus of Parietal lobe(3,1,2)
D. Supplementary motor area 6
E. Post central gyrus of frontal lobe

A

Q2. Aslam is suffering from Mysthenia Gravis he has disorder of speech which is due to paralysis of muscle required for speech it is called
A. Sensory aphasia
B. Motor aphasia
C. Global aphasia
D. Dysarthria
E. Dyslexia

A

Q3. Lesion of which part of brain will lead to loss of recent memory (anterograde amnesia):
A. Amygdale
B. Frontal lobe
C. Hippocampus
D. Limbic cortex
E. Hypothalamus

C

Q4. The capacity of brain to ignore the unimportant informations due to inhibition of synaptic pathway, is called?
A. Positive memory
B. Habituation
C. Declarative memory
D. Skill memory
E. Negative memory

B

Q5. The long term memory results due to?
A. Closing of Ca^{++} channels
B. Increase in vesicle release site for secretion of transmitter substance
C. Increasing the k^{+} conductance
D. Decreasing the action potential
E. Inhibiting the synaptic transmission

B

Q6. Amina got an accident since that time she is unable to recall the past memories. Which area of brain is damaged?
A. Limbic cortex
B. Dentate nucleus
C. Amygdala
D. Thalamus
E. Mammillary nuclei of the hypothalamus

C

Q7. Major reward center is present in:
A. Ant. Nucleus of Hypothalamus
B. pons
C. Lateral &Ventromedial nuclei of Hypothalamus
D. Periaqueductal grey area
E. Brain stem

C

Q8. Bilateral lesions involving the ventromedial hypothalamus lead to?
A. Decreased eating and drinking
B. Loss of sexual drive
C. Excessive eating, rage and aggression, and hyperactivity
D. Uterine contractility and mammary gland enlargement
E. Obsessive-compulsive disorder

Q9.The circadian rhythm is controlled by
A. Suprachiasmatic nuclei
B. Thalamus
C. Red Nucleus
D. Medulla oblongata
E. Raphe nuclei

A

AZRA NAHEED MEDICAL COLLEGE LAHORE

PHYSIOLOGY DEPARTMENT
2nd Year MBBS

MID MODULAR TEST

SHORT QUESTIONS (MCQS)
Total Marks 20, Time 20mins
Select Single best answer, all questions carry equal marks.
Name : _____ Roll No:
Dated: 25-02-2020

INSTRUCTIONS
1-All objective questions are to be attempted on the paper and returned to the invigilator within 20 mins
2-Any cutting and overwriting in objective part will not be accepted

Q1. A young boy experiences problem to make meaning out of the visually perceived words while reading a book. Otherwise he can still have excellent language comprehension through hearing. Most probable problem lies in which of the following area:

A. Wernick's area
B. Broca's area
C. Angular gyrus area
D. Secondary somatic area
E. Primary somatic area

Q2. An interesting type of brain abnormality called prosopagnosia is inability to recognize faces. This occurs in people who have extensive damage of:

A. The medial undersides of both occipital lobes and medioventral surfaces of the temporal lobes
B. The posterior part of parietal lobe
C. Precentralgyrus
D. Wernick's area in categorical hemisphere
E. Cerebrocerebellum

Q3. Global Aphasia is caused by lesion of both:

A. Cerebeelum and basal ganglia
B. Cerebellum and thalamus
C. Cerebral cortex and hypothalamus
D. Wide spread damage of Wernick's area Including angular gyrus
E. Pons and medulla

Q4. Retrogarde amnesia indicates :-

A. Inability to consolidate memories
B. Inability to recall past memories
C. Failure of working memory
D. Presence of lesions in the hypothalamus
E. Lesion of frontal cortex

Q5. The hypothalamic nucleus that acts as a biological clock of the body is:

A. Supraoptic nucleus
B. Preoptic nucleus
C. Arcuate nucleus
D. Suprachiasmatic nucleus
E. Posterior nucleus

Q6. Stimulation of which area of br... produce sleep?

A. Raphe nuclei in lower half o... & medulla
B. Amygdala
C. Hippocampus
D. Limbic cortex
E. Primary sensory area

Q7. Aslam is suffering from Mysthenia Gravis he has disorder of speech which is due to paralysis of muscle required for speech it is called

A. Sensory aphasia
B. Motor aphasia
C. Global aphasia
D. Dysarthria
E. Dyslexia

Q8. The major reward centre is located in which part of hypothalamus:

A. Lateral and ventromedial nu...
B. periventricular area
C. Paraventricular nuclei
D. Perifornical nuclei
E. Arcuate nuclei

Q9. The Kluver-Bucy syndrome is characterized by decreased emotional expression, loss of fear, excessive oral behavior and increased sexual activity. These symptoms are produced b... bilateral lesion of the:

A. Hippocampus
B. Amygdala
C. Ventral hypothalamus
D. Corpus callosum
E. Cingulate gyrus

Q10. β – waves of the EEG :-

A. Are observed during relaxed wakeful state
B. Are faster than α ... waves but slower than theta waves
C. Disappear wh... the perso... becomes alert
D. Are observed du... ale... wakeful state
E. Are observed in d... sl...

Q11. Possible exaggerated function of part of the dopamine system will result in:

A. Mania
B. Depression
C. Alzheimer's Disease
D. Schizophrenia
E. Parkinson's Disease

Q12. A 5-year-old boy brought to hospital with complaints of 3-30 seconds of unconsciousness, during which he stares and has twitch like contractions of head and blinking of eyes. Afterwards he resumes activities no[illegible]. The most probable diagnosis is:

A. Complex partial seizure
B. Absence epilepsy
C. Simple partial seizure
D. Tonic-clonic seizure
E. Parkinson's Disease

Q13. In rhodopsin cycle which is the active substance which trigger first step of cascade of stimulation of Rods:

A. Dissociation of scotopsin and meta rhodopsin
B. Decomposition of scotopsin
C. Transformation of 11-cis retinal to all-trans retinal
D. Transformation of meta rhodopsin to lu[illegible] rhodopsin
E. Transformation of bathorhodopsin to lumirhodopsin

Q14. An increase in refractive power of lens is contributed by contraction of the:

A. Iris
B. Ciliary muscle
C. Suspensory ligament
D. Extraocular muscles
E. Pupil

Q15. The stimulation of which type of sensory receptor cause the receptor cell membrane to hyperpolarize:

A. Meissners Corpuscle
B. Rods
C. Free nerve ending
D. Touch receptors
E. Nocireceptors

Q16. Minimum how much increase in [illegible] pressure can cause loss of vision when maintained for long period of time:

A. 5 to 10 mm Hg
B. 10 to 15 mm Hg
C. 15 to 20 mm Hg
D. 20 to 25 mm Hg
E. 25 to 30 mm Hg

Q17.Concave spherical lenses are used for the correction of:

A. Hyperopia
B. Myopia
C. Emmetropia
D. Astigmatism
E. Cataract

Q18. The ability of a person with two eyes far greater ability to judge relative distance when the objects are nearby is known as:

A. Accomodation
B. Colour vision
C. Dark adaptation
D. Stereopsis
E. Light adaptation

Q19. When rhodopsin decomposes after exposure to light, it decreases the rod membrane conductance for which ion in [illegible]uter segment?

A. Na
B. K
C. Ca
D. Mg
E. Cl

Q20. A 75-years-old male, presented to eye with complaints of loss of accommodation. On examination his power of accommodation found to be decreased to 0 diopters. What would be the most probable diagnosis?

A. Myopia
B. Cataract
C. Astigmatism
D. Hyperopia
E. Presbyopia

Q10.Sense of satiety or decreased thirst results by stimulation of which nuclei:

A. Paraventricular nuclei
B. Ventromedial nucleus
C. Supraoptic nuclei
D. Posterior Hypothalamus
E. Anterior ypothalamus

Q11. Which one is function of Limbic system

A. Cognitive function
B. Voluntary motor activity
C. Coordination
D. Control of body temperature
E. Motivation, reward, punishment

Q12. Which part of brain is believed to make the persons behavior in response to appropriate for each occasion?

A. Prefrontal Cortex
B. Occipital Lobe
C. Amygdala
D. Basal ganglia
E. Hippocampus

Q13. Which statement about the Kluver bucy syndrome is Incorrect?

A. Has excessive Curiosity about every thing
B. Puts everything in mouth
C. Has excessive sex derive
D. Is afraid of everything
E. Not damage of amygdala

Q14. Temperature regulating center is present in

A. Cerebellum
B. Thalamus
C. Pre-optic area
D. Basal ganglia
E. Anterior pituitary

Q15. By rehearsal short term memory is converted to long term memory. It involves following phenomenon

A. Reverberating circuits
B. Presynaptic facilitation
C. Codification of new memories into direct association with old memories of same type
D. Post synaptic inhibition
E. Presynaptic inhibition

Q16.Which area is needed for initial processing of visual language (reading)?

A. Pre-motor area
B. Brocas area
C. Angular gyrus
D. Limbic area
E. Parieto –occipital area

Q17. 45 years old male is diagnosed as a case o word blindness or dyslexia. This condition is d to lesion in?

A. Angular gyrus
B. Pre frontal area
C. Broca's area.
D. Wernick's area.
E. Limbic association area

Q18. Global aphasia is caused by lesion of wh area?

A. Wide spread damage of wernick's area
B. Brocas area
C. Arcuate area
D. Amgydaloid
E. Thalamus

Q19.Loss of Broca's area causes

A. Sensory aphasia
B. Global aphasia
C. Motor aphasia
D. Wernicks aphasia
E. All of above

Q20. How short term memory is stored

A. Pre synaptic facilitation
B. Reverberating circuits
C. Both A & B
D. Pre synaptic inhibition
E. Post synaptic inhibition

MCQs

Arqum Aziz F18-020

Q1- Which of the following form myelin sheath around axons in CNS?

Ans:- Oligodendrocytes

Q2- Which of the following fibers are preganglionic autonomic fibers?

Ans:- Aβ

Q3- An excitatory synapse?

Ans:- Signals the influx of sodium ions into post synaptic neuron-

Q4- Temporal summation occurs when?

Ans:- A neuron ~~fiber~~ fires repeatedly at very fast rate-

Q5. When student first time enters in DH, he feels smell of Formalin but gradually he does not feel any smell due to adaptation of receptors. what is the mechanism of Adaptation?

Ans:- Progressive inactivation of sodium channel.

Q6- The membrane of presynaptic terminal contains large No. of?

Ans:- voltage Gated Calcium Channels.

Q7- Inhibitory post synaptic potential is produced due to opening up of?

Ans:- K^+ efflux and Cl^- influ

Q8- Correct Statement?

Ans:- Alkalosis increases the neuronal excitability

Q9- Following accident Aslan went to Neurologist who did the tuning fork test to check the integrity of dorsal column. low frequen vibration Belbw 200 cycles per second will be detected b

Ans:- Meissners corpuscles

Q10- Patient came in emergency with complaint of loss of pain and temperature sensations, On MRI fluid filled cavities were found in spinal cord, in your opinion. what is this disease called

Ans:- Syringomylia

Q18:- Amorphosynthesis or Neglect syndrome occurs due to damage of?

Ans:- Somatosensory Association Area

Q19:- The parietal pain is better localized than visceral pain due to?

Ans:- Direct conduction into local spinal nerve from parietal layers of peritoneum.

Q20:- Iggo dome receptors are multiple numbers of merkel's disc connected to a single long myelinated fiber. It carries the following sensation?

Ans:- Touch

Dated:

Q11- If sharp pointed object touches the foot of person, the foot is immediately withdrawn from the object, involuntarily - This involves the receptor?

Ans:- Free Nerve Endings (Nociceptors)

Q12:- All the sensory nerve fibers enter the spinal cord through?

Ans:- Dorsal Nerve Root

Q13:- Which types of sensations are carried by anterolateral system?

Ans:- Crude touch, pain and temperature

Q14:- Which statement about dorsal column medial leminscus system is correct?

Ans:- Rapidly changing intensity stimuli can be appreciated in dorsal column.

Q15:- Naila is severly sick by getting infection with treponema pallidum, she was left untreated so ultimately degener of dorsal (sensory) nerve root occured, this disease is?

Ans:- Tabes Dorsalis

Q16:- The receptor which get adapted very rapidly are called?

Ans:- Phasic Receptors

Q17:- The bilateral excision of somatosens area I will not significantly impair?

Ans:- Pain Perception

niceday notes